BULLETIN OF THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
VOL. 30, NO. 12 (DECEMBER, 1946), PP. 2097-2119

INDEX OF VOLUME 30 (1946)

Abstracts, Application of Geology to Military Science and Special Papers 740
Abstracts of Biloxi Meeting, October 24–25 1963
———, of Papers on Technical Program. The Association Round Table 740
———, Pacific Section Twenty-Second Annual Meeting, November 8 and 9, 1945. The Association Round Table 128
Abstracts, Pacific Section 2087
———, Papers "by Title" 751
———, Regional and Oil-Field Papers 749
———, Tectonics and Oil-Field Papers 745
———, Trends and Developments since 1941 747
Accumulation of Oil in Continental Sediments at the South Belridge Oil Field, Kern County, California. By E. J. Coenen and H. D. Hobson. Abstract 2090
Activities, Expanding, of Paleontologists. By John R. Sandidge 1088
Aerial Photography, Some Developments in, during the War. Geological Note by L. E. Nugent, Jr. 725
Age of Penters Chert, Batesville District, Arkansas. Geological Note by Douglas M. Kinney 611
Agnew, Allen F., and Heyl, Allen V., Jr. Quimbys Mill, New Member of Platteville Formation, Mississippi Valley. Geological Note 1585
Ahlfeld, F. Geologia de Bolivia. Review by Norman D. Newell 2065
Alabama Coastal Plain, Vick Formation of Pre-Tuscaloosa Age of. Geological Note by Louis C. Conant 711
Alabama, Western, Pre-Selma Upper Cretaceous Stratigraphy of. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle 187
Alaska, Recent Investigations by United States Geological Survey of Petroleum Possibilities in. By John C. Reed 1433
Alberta and Montana, Fossil Plants and Jurassic-Cretaceous Boundary in. By Roland W. Brown 238
Alexander, C. W. Developments in Southeastern States in 1945 1020
Alexander, C. W., and Harris, R. M. Abstract 1964
Algae Reefs in Cap Rock of Ogallala Formation on Llano Estacado Plateau, New Mexico and Texas. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
Allison, A. P., Beckelhymer, R. L., Benson, Don G., Hutchins, R. M., Jr., Lake, C. L., Lewis, Ray C., O'Bannon, P. H., Self, S. R., and Warner, C. A. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Alpha-Particle Bombardment, Formation of Hydrocarbons from Fatty Acids by. By C. W. Sheppard and W. L. Whitehead 32
Alunite at Woodbine-Eagle Ford Contact in Northeastern Texas. Geological Note by L. W. Stephenson 1764
Amendments to Constitution and By-Laws. At Home and Abroad 1620
Amendments to Constitution and By-Laws. The Association Round Table 139
American Association of Petroleum Geologists, Association Committees 126, 287, 357, 1057, 1206, 1312, 1597, 1779, 1960, 2071
American Association of Petroleum Geologists. Constitution and By-Laws. The Association Round Table 1600
American Association of Petroleum Geologists Fall Meeting, Biloxi, Mississippi, October 24, 25, 1946. Announcement. The Association Round Table 1314, 1615
American Association of Petroleum Geologists, Financial Statement for 1945. The Association Round Table 455
American Association of Petroleum Geologists, Financial Statement, Division of Paleontology and Mineralogy, for 1945. The Association Round Table 459
American Association of Petroleum Geologists, Membership List, March 2, 1946. The Association Round Table 361
American Association of Petroleum Geologists Mid-Continent Regional Meeting, Wichita, Kansas, January 16–17, 1947. Announcement. The Association Round Table . . . 1615, 2078
American Association of Petroleum Geologists, Minutes. Thirty-First Annual Business Meeting, Chicago, April 1–4, 1946. By Edward A. Koester. The Association Round Table . 755
American Association of Petroleum Geologists, Past and Present Officers. The Association Round Table 360
American Association of Petroleum Geologists, Supplementary Membership List, September 1, 1946. The Association Round Table 1610

American Association of Petroleum Geologists, Thirty-First Annual Meeting, Chicago, April 1-4, 1946. The Association Round Table 738
A.P.I. Research Project No. 43—Transformation of Organic Material into Petroleum, Progress Report on, by G. M. Knebel 1935
Americas, Tectonic Development of, to Form the East Rim of the Pacific. By Hans Stille. Review by W. A. Ver Wiebe 1054
Amsden, Ellis, and Big Snowy Group, Judith Basin, Montana. By Paul T. Walton . . . 1294
Anderson, Frank Marion. Memorial by C. M. Wagner 636
Appalachian Area, Developments in 1945. By Appalachian Geological Society 861
Appalachian Geological Society. Developments in Appalachian Area in 1945 861
Application of Geology to Military Activities. By W. P. T. Hill. Abstract 740
Application of Geology to Military Science and Special Papers. Abstracts 740
Aquitaine Basin, France, Petroleum Geology of. By A. J. Eardley 1517
Archuleta County, Colorado, Gramp's Field. By W. A. Waldschmidt 561
Arellano, Alberto, R. V., and Cooper, G. Arthur. Stratigraphy Near Caborca, Northwest Sonora, Mexico. Geological Note 606
Argentina, Northern, Province of Salta, San Pedro Oil Field. By Lyman C. Reed 591
Arizona, Faulting in East Part of Grand Canyon of. By C. E. Van Gundy 1899
Arizona, Western New Mexico, and Northern New Mexico, Developments in 1945. By Robert L. Bates 958
Arkansas, Age of Penters Chert, Batesville District. Geological Note by Douglas M. Kinney . 611
Arkansas, South, and North Louisiana, Developments in 1945. By William S. Hoffmeister and Van Daniel Robinson 1007
Asphaltic Sands Found to Occur in Oil Fields. Geological Note by D. B. Taliaferro and K. E. Stanfield 616
Assistant Business Manager, Elmer W. Ellsworth Appointed. The Association Round Table . 1211
At Home and Abroad 147, 297, 470, 640, 807, 1068, 1217, 1318, 1617, 1789, 1973, 2092
Atlantic Coastal Plain Floor and Continental Slope of North Carolina. Geological Note by W. F. Prouty 1917
Attack, The Geological. By M. G. Cheney 1077
Aurin, F. L., chairman. Report of National Service Committee. The Association Round Table 778
Austin County, Texas, Raccoon Bend Salt Dome. Geological Note by H. J. McLellan . . 1306

Baca, Las Animas, and Otero Counties, Colorado, Correlation of Paleozoic Rocks Across Las Animas Arch in. By John C. Maher 1756
Bailey, Thomas L. Abstract 2089
Ball, Max W., chairman. Report of Committee on Boy Scout Literature. The Association Round Table 785
Barb, Clark F. Selected Well Logs of Colorado. Review 282
Barbat, W. F., and Taliaferro, N. L. Notes on Geology of Deep Coles Levee Well, Kern County, California. Abstract. The Association Round Table 132
Barton County, Northeastern, Central Kansas, Buried Pre-Cambrian Hills in. By Robert F. Walters 660
Bartram, John G. Final Report of Committee on Method of Election of Officers. The Association Round Table 134
Bartram, John G., chairman. Report of Committee on Geologic Names and Correlations. The Association Round Table 790
Bass, N. W., Thomas, C. R., and Huddle, John W. Abstract 749
Bates, Fred W., and Wharton, J. B., Jr. Developments in Gulf Coast of Louisiana in 1945 . 999
Bates, Fred W., and Wharton, Jay B. Abstract 1966
Bates, Robert L. Abstract 751
Bates, Robert L. Developments in Arizona, Western New Mexico, and Northern New Mexico in 1945 958
Batesville District, Arkansas, Age of Penters Chert. Geological Note by Douglas M. Kinney . 611
Beach, Floyd K. Photography of Megafossils. Discussion 620
Beach, J. H., and Campbell, Harry. Abstract 2090
Beck, R. Stanley. Abstract 2088
Benson, Don G., Allison, A. P., Beckelhymer, R. L., Hutchins, R. M., Jr., Lake, C. L., Lewis, Ray C., O'Bannon, P. H., Self, S. R., and Warner, C. A. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Beckelhymer, R. L. Stratigraphy of Waller and Harris Counties, Texas 52
Beckelhymer, R. L., Allison, A. P., Benson, Don G., Hutchins, R. M., Jr., Lake, C. L., Lewis, Ray C., O'Bannon, P. H., Self, S. R., and Warner, C. A. Geology of Katy Field, Waller,

Harris, and Fort Bend Counties, Texas 157
Beilharz, Carl F., and Davis, Donald M. Developments in Upper Gulf Coast of Texas in 1945 991
Bell, Alfred H. Developments in Eastern Interior Basin in 1945 879
Bell, John S., Wendlandt, E. A., and Shelby, T. H., Jr., Hawkins Field, Wood County, Texas 1830
Bell, John, Wendlandt, E. A., and Shelby, T. H. Abstract 746
Bibliographies, General, on Geological Material 1326
Big Snowy, Amsden, and Ellis Group, Judith Basin, Montana. By Paul T. Walton . . . 1294
Biloxi Meeting, Abstracts of, October 24–25 1963
Boice Shale, New Mississippian Subsurface Formation in Southeast Nebraska. Geological Note by E. C. Reed 348
Bolivia, Geologia de, by F. Ahlfeld. Review by Norman D. Newell 2065
Books—War Victims. At Home and Abroad 1071
Borden, Joseph L. Developments in Oklahoma in 1945 902
Bornhauser, Max. Abstract 745
Bowen, Gilbert T. Memorial of Kenneth Mason Bravinder 805
Brantly, J. E. Memorial of Harold Kurtz Shearer 1315
Bravinder, Kenneth Mason. Memorial by Gilbert T. Bowen 805
British Guiana, Report on Exploration for Oil in. By H. G. Kugler *et al.* Review by H. D. Hedberg 120
Broggi, J. A. "Jacob Staff" and Measurements of Stratigraphic Sequences. Geological Note 716, 1934
Brown, Roland W. Fossil Plants and Jurassic-Cretaceous Boundary in Montana and Alberta . 238
Bucher, J. E., Woods, E. Hazen, and Chase, C. L. Developments in West Texas and Southeastern New Mexico in 1945 930
Buckley, Stuart E. Abstract 748
Buckley, Stuart E. Trends and Developments in Petroleum Engineering 1131
Buena Vista Hills (27-B Pool). By Evan Burtner. Abstract. The Association Round Table . 129
Burger, Robert W. Memorial by Rollin Eckis 803
Buried Pre-Cambrian Hills in Northeastern Barton County, Central Kansas. By Robert F. Walters 660
Burtner, Evan. Bueno Vista Hills (27-B Pool). Abstract. The Association Round Table . . 129

Caborca, Northwest Sonora, Mexico, Stratigraphy Near. Geological Note by G. Arthur Cooper, and Alberto R. V. Arellano. 606
California, Developments in 1945. By Graham B. Moody 829
———, Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley. By S. N. Daviess 63
———, Puente and San Jose Hills, Miocene Conglomerates of. By A. O. Woodford, T. G. Moran, and J. S. Shelton 514
Cambrian and Ordovician Rocks Penetrated by Recent Wells Drilled in Southeastern Michigan. By George V. Cohee. Abstract 752
Cambrian History of Grand Canyon Region. By Edwin D. McKee and Charles E. Resser. Review 282
Campbell, Harry, and Beach, J. H. Abstract 2090
Canada, Development in 1945. By George S. Hume 851
Cap Rock of Ogallala Formation on Llano Estacado Plateau, New Mexico and Texas, Algae Reefs in. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
Carbonaceous Hydrocarbon: Harbolite. Geological Note by Cevat E. Tasman. 1051
Carbonate Rock, Grain Size in. Geological Note by Ronald K. DeFord 1921
Carpathian Region, Oil Fields of. By Ray P. Walters 319
Case Histories, Geological, Publication of. By Henry C. Cortes 1095
Cenozoic Deposits of Mississippi and Adjacent Areas. By Grover E. Murray, Jr. Abstract . 1964
Central Kansas. Buried Pre-Cambrian Hills in Northeastern Barton County. By Robert F. Walters 660
———, Siluro-Devonian Strata in. By Hall Taylor. 1221
Central Texas, Lower Pennsylvanian Terminology in. By R. C. Spivey and T. G. Roberts . 181
Chase, C. L., Woods, E. Hazen, and Bucher, J. E. Developments in West Texas and Southeastern New Mexico in 1945 930
Cheney, M. G. Elias Howard Sellards—Honorary Member. The Association Round Table . 735
———. Report of President. The Association Round Table 761
———, representative. Report of Representative on Division of Geology and Geography of National Research Council, 1945–1946. The Association Round Table 792
———. The Geological Attack 1077
Chisholm, William Francis. Memorial by G. D. Thomas 1213
Clark, Bruce Lawrence. Memorial by Chester Stock 1065

Clark, Frank R. Recipient of President's Award—Horace Gardiner Richards. The Association Round Table 736
———, chairman. Report of Medal Award Committee. The Association Round Table . . 785
Clark, Frank R., chairman. Report of the Nominating Committee. The Association Round Table 1609
Clark, Robert W., chairman. Minutes of Business Committee. The Association Round Table 794
———, chairman. Report of Business Committee. The Association Round Table 757
Classification of Oil Possibilities, Outline for. Geological Note by Frank Reeves 111
Clements, Thomas. Stratigraphic Section East of Bogota, Colombia. Abstract. The Association Round Table 130
Coenen, E. J., and Hobson, H. D. Abstract 2090
Coffin, R. Clare. Abstract 748
Cohee, George V. Abstract 752
Cole, Virgil B., and Koester, Edward A. Developments in North Mid-Continent in 1945 . 895
Collection of Drill Cuttings, West Virginia Geological Survey. Geological Note by James H. C. Martens. 350
College Students Majoring in Geology, Survey of. Research Note by A. I. Levorsen . . . 730
Colorado, Archuleta County, Gramp's Field. By W. A. Waldschmidt 561
———, Selected Well Logs of. By Clark F. Barb. Review 282
Comparative Data of Membership. The Association Round Table 767
Conant, Louis C. Vick Formation of Pre-Tuscaloosa Age of Alabama Coastal Plain. Geological Note 711
Conant, Louis C., Monroe, Watson H., and Eargle, D. Hoye. Pre-Selma Upper Cretaceous Stratigraphy of Western Alabama 187
Conodonts as Paleozoic Guide Fossils. By Samuel P. Ellison, Jr. 93
——— from Triassic of Sinai (Egypt). Geological Note by D. B. Eicher 613
Continental Shelves, Origin of. By J. H. F. Umbgrove 249
Constitution and By-Laws. The Association Round Table 1600
Continental Slope of North Carolina, Atlantic Coastal Plain Floor and. Geological Note by W. F. Prouty 1917
Continents and Oceans, Distribution of. By W. G. Woolnough 1981
Conway, William Palen, Jr. Memorial by M. H. Steig 463
Cooke, S. R. B., and Sloss, L. L. Abstract 749
———. Spectrochemical Sample Logging of 1888
Cooper, G. Arthur, and Arellano, Alberto, R. V. Stratigraphy Near Caborca, Northwest Sonora, Mexico. Geological Note 606
Correlation of Permian of West Texas and Southeast New Mexico. By John W. Skinner . . 1857
——— of Paleozoic Rocks across Las Animas Arch in Baca, Las Animas, and Otero Counties, Colorado. By John C. Maher 1756
Correlations Committee, Geologic Names and, Functions and Organization of. By Henry J. Morgan, Jr. The Association Round Table. 2079
Cortes, Henry C. Publication of Geological Case Histories 1095
Cox, Ben B. Transformation of Organic Material into Petroleum under Geological Conditions (The Geological Fence) 645
Craig, Eric K. Memorial of Donald Dudley Hughes. 1786
Cranfield Field, Adams and Franklin Counties, Mississippi. By George Zebal. Abstract . . 1967
Cretaceous, Late Upper, Paleocene, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California, Mineralogy of. By S. N. Daviess . . . 63
——— of Colombia. By J. Wyatt Durham. Abstract 2089
———, Upper, and Paleocene in Western Ecuador, Micropaleontology of. By Hans E. Thalmann 337
———, Upper, Pre-Selma, Stratigraphy of Western Alabama. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle 187
Crider, Albert Foster. Memorial by C. L. Moody 633
Croneis, Carey. Science Legislation and Geology 1104
Current, A. M. Abstract 1967

Dating Sedimentation, Vulcanism, and Orogeny by Heavy Minerals in Beartooth Region, Montana. By Marcellus H. Stow. Abstract 751
David, Max. Devonian (?) Producing Zone, TXL Pool, Ector County, Texas. Geological Note. 118
Davis, Donald M., and Beilharz, Carl F. Developments in Upper Gulf Coast of Texas in 1945. 991
Daviess, S. N. Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California 63

Deferment of Scientific and Technical Personnel. Office of Scientific Personnel, Bulletin 26. By M. H. Trytten. The Association Round Table 141
DeFord, Ronald K. Grain Size in Carbonate Rock. Geological Note 1921
———. Review of A Survey of Weathering Processes and Products, by Parry Reiche . . 280
DeFord, Ronald K., and Waldschmidt, W. A. Oölite and Oölith. Geological Note. . . . 1587
Delhi, West Delhi and Big Creek Fields. By A. M. Lloyd and R. B. Totten. Abstract . . 1967
Denison, A. Rodger. The Geologist in World War II—A Memorial 802
Development in Canada in 1945. By George S. Hume 851
——— in South Texas in 1945. By Bruce Scrafford 972
——— of Structures in Basin Areas of Northeastern United States. By J. R. Lockett. Abstract 743
———, Tectonic, of the Americas to Form the East Rim of the Pacific. By Hans Stille. Review by W. A. Ver Wiebe 1054
Developments in Appalachian Area in 1945. By Appalachian Geological Society 861
——— in Arizona, Western New Mexico, and Northern New Mexico in 1945. By Robert L. Bates 958
——— in California in 1945. By Graham B. Moody. 829
——— in East Texas during 1945. By T. H. Shelby, Jr., and G. J. Loetterle. 980
——— in Eastern Interior Basin in 1945. By Alfred H. Bell 879
——— in Louisiana Gulf Coast in 1945. By Fred W. Bates and Jay B. Wharton, Jr. 999
——— in Michigan in 1945 By H. J. Hardenberg 886
——— in North Mid-Continent in 1945. By Virgil B. Cole and Edward A. Koester. 895
——— in North and West-Central Texas in 1945. By North Texas Geological Society. . . . 963
——— in Oklahoma in 1945. By Joseph L. Borden 902
——— in South Arkansas and North Louisiana in 1945. By William S. Hoffmeister and Van Daniel Robinson 1007
——— in Rocky Mountain Region in 1945. By E. W. Krampert 912
——— in Southeastern States in 1945. By C. W. Alexander 1020
——— in Texas Panhandle in 1945. By Porter A. Montgomery, Jr., and Le Roy Fugitt . 925
——— in Upper Gulf Coast of Texas in 1945. By Donald M. Davis and Carl F. Beilharz. . 991
——— in West Texas and Southeastern New Mexico in 1945. By E. Hazen Woods, C. L. Chase, and J. E. Bucher 930
Developments and Trends in Petroleum Engineering. By Stuart E. Buckley 1131
Devonian (?) Producing Zone, TXL Pool, Ector County, Texas. Geological Note by Max David 118
Devonian-Siluro Strata in Central Kansas. By Hall Taylor 1221
Devonian Stratigraphy in Montana. By Wilson M. Laird and Laurence L. Sloss. Abstract . 751
Diastrophic Activity, During Historic Time, in Western Gulf Coastal Plain. By Martin M. Sheets. Abstract 745
Dickerson, Roy E., and Straley, H. W., III. Suggestions for Naming Multiple Sands. Geological Note 115
Dickey, Parke A. Distinguished Lecture Tour. At Home and Abroad. 301
Directory of Geological Material in North America. By J. V. Howell and A. I. Levorsen . . 1321
———. Bibliographies, General 1326
———. Canada, by Provinces, and Newfoundland 1337
———. Central American Countries 1347
———. Commercial Map Publishers 1330
———. Dictionaries, Glossaries, Encyclopedias, Statistics, and Handbooks 1327
———. Foreword. By J. V. Howell and A. I. Levorsen 1322
———. General Material:—National and Continental in Area 1323
———. Libraries Furnishing Photostat and Microfilm Service 1334
———. Mexico 1348
———. Miscellaneous Books and Publications of General Geological Interest 1328
———. Publications and Non-Commercial Publishing Agencies, Regional, National, and Continental. 1323
———. Regional and National Geologic and Physiographic Maps. 1331
———. Specific Material:—State and Province in Area 1337
———. State and Province Geological Maps 1332
———. Thin-Section and Rock-Polishing Service 1336
———. Trade Journals: Oil, Gas, Mineral Industry 1334
———. United States—States and Territories 1349
Discussion 275, 620, 1053, 1589, 2035
Distinguished Lecture by T. S. Oakwood. At Home and Abroad. 476
Distinguished Lecture Tour by Parke A. Dickey. At Home and Abroad 301
——— by Paul H. Price. At Home and Abroad 1976
——— by H. N. Fisk 2041

——— by Wallace E. Pratt. At Home and Abroad 1977
——— by William O. Hotchkiss. At Home and Abroad 1977
——— by Horace G. Richards. At Home and Abroad. 1069
——— by Harold W. Scott. At Home and Abroad 301
——— by W. H. Twenhofel. At Home and Abroad 807
Distribution of Oceans and Continents. By W. G. Woolnough 1981
Dixon, W. J., and Swesnik, R. M. Statistics of Exploratory Drilling. Discussion 2035
Dobbin, C. E. Abstract 749
———, chairman. Report of Committee for Publication. The Association Round Table. . 792
Dolomitization, Porosity through. By Kenneth K. Landes. 305
Dorf, Erling, Graton, L. C., and Williams, Howel. Paracutin Volcano, Mexico. Review by John L. Ferguson 121
Dreher, Otto. Memorial by E. A. Ritter 1786
Drill Cuttings, West Virginia Geological Survey Collection of. Geological Note by James H. C. Martens. 350
Durham, J. Wyatt. Abstract 2089

Eardley A. J. Petroleum Geology of Acquitaine Basin, France 1517
Eargle, D. Hoye, Monroe, Watson H., and Conant, Louis C. Pre-Selma Upper Cretaceous Stratigraphy of Western Alabama 187
Earth, the Pulse of. By J. H. F. Umbgrove. Review by W. A. Ver Wiebe 279
Earth History, Geotectonic Subdivisions of. By Hans Stille. Review by W. A. Ver Wiebe . 1200
East Indian Archipelago, Oil Basins of. By H. M. Schuppli 1
East Indies, Evolution of Reef Corals in, since Miocene Time. by J. H. F. Umbgrove . . 23
East Texas, Developments in 1945. By T. H. Shelby, Jr., and G. J. Loetterle 980
East Texas Geological Society Field Trip, December 1 and 2, 1945. Discussion by C. L. Moody 276
Eastern Interior Basin, Developments in 1945. By Alfred H. Bell 879
Eaton, J. E. Use of Quotation Mark in Science. Geological Note 1928
Eby, J. Brian, chairman. Report of Committee on Applications of Geology. The Association Round Table 784
Eckis, Rollin. Memorial of Robert W. Burger 803
Ector County, Texas, Devonian (?) Producing Zone, TXL Pool. Geological Note by Max David 118
Ecuador, Western, Micropaleontology of Upper Cretaceous and Paleocene in. By Hans E. Thalmann 337
Effects of World War II on California Oil Reserves. By Graham B. Moody. Abstract . . 2088
Egypt, Conodonts from Triassic of Sinai. Geological Note by D. B. Eicher. 613
Eicher, D. B. Conodonts from Triassic of Sinai (Egypt). Geological Note. 613
Election of Officers, Final Report of Committee on Method of. By John G. Bartram. The Association Round Table 134
Elias, Maxim K., Price, W. Armstrong, and Frye, John C. Algae Reefs in Cap Rock of Ogalalla Formation on Llano Estacado Plateau, New Mexico and Texas 1742
Ellis, Amsden, and Big Snowy Group, Judith Basin, Montana, By Paul T. Walton. . . . 1294
Ellis, Brooks F. Review of Principles of Micropaleontology, by M. F. Glaessner 1201
Ellison, Samuel P., Jr. Conodonts as Paleozoic Guide Fossils 93
Ellsworth, Elmer W., Appointed Assistant Business Manager. The Association Round Table. 1211
Elmore Embayment, Garvin County, Oklahoma. Geological Note by Robert R. Wheeler . . 2034
Ely, Fred Burchard. Memorial by Gail F. Moulton 1616
Emmons, William Harvey—Honorary Member. By A. I. Levorsen. The Association Round Table 733
Engineering, Petroleum Production—Oil Field Development, by Lester Charles Uren. Review by Harry H. Power 2064
Eocene, Late Upper Cretaceous, and Paleocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California, Mineralogy of. By S. N. Daviess. 63
Estorff, Fritz E. von. Tectonic Framework of Northwestern South America 581
———, Discussion by Victor Oppenheim 1589
Evidence Supporting Lateral Migration of Oil, San Joaquin Valley, California. By Glenn C. Ferguson. Abstract 2090
Evolution of Reef Corals in East Indies since Miocene Time. By J. H. F. Umbgrove. . . 23
Expanding Activities of Paleontologists. By John R. Sandidge 1088
Executive Committee. Memorial of Alexander Watts McCoy 292
Exploration for Oil in British Guiana, Report on. By H. G. Kugler *et al.* Review by H. D. Hedberg 120

Exploration and Development, 1945, Review of 813
Exploratory Drilling in 1945, Statistics of. By Frederic H. Lahee 813
Exploratory Drilling, Statistics of. Discussion by W. J. Dixon and R. M. Swesnik . . . 2035
Exploratory Operations, Present, Geological Occurrence of Oil in United Kingdom with Reference to. By H. R. Lovely 1444, 1959
Facing Forward. By Eugene Holman 1099
Fairbridge, Rhodes W. Submarine Slumping and Location of Oil Bodies 84
Fall Meeting, Biloxi, Mississippi, October, 24–26, 1946. Announcement. The Association Round Table 1314, 1615
Fatty Acids, Formation of Hydrocarbons from, by Alpha-Particle Bombardment. By C. W. Sheppard and W. L. Whitehead 32
Fault Structures, Normal, and Others. By Bailey Willis 1875
Faulting, Apparent, Relations between Kinds of Well Data and. Geological Note by H. H. Suter 1910
——— in East Part of Grand Canyon of Arizona. By C. E. Van Gundy 1899
Ferguson, Glenn C. Abstract 2090
Ferguson, John L. Review of Paracutin Volcano, Mexico, by L. C. Graton, Howel Williams, and Erling Dorf 121
Field Trip, East Texas Geological Society, December 1 and 2, 1945. Discussion by C. L. Moody 276
Final Reports on a Reconnaissance Survey of Research Needs in Petroleum Geology by the American Association of Petroleum Geologists Research Committee, 1945–1946. Foreword. By Shepard W. Lowman 2042
Financial Statement, Division of Paleontology and Mineralogy, for 1945. The Association Round Table. 459
——— for 1945. The Association Round Table. 455
First Oligocene Mammalian Fauna from Northern South America. By R. A. Stirton. Abstract. The Association Round Table 131
Fisk, H. N., Distinguished Lecture Tour 2041
Foreword. Directory of Geological Material in North America. By J. V. Howell and A. I. Levorsen 1322
Formation of Evaporites under Marine Evaporation Conditions. By Paul Weaver. Abstract . 1965
Formation of Hydrocarbons from Fatty Acids by Alpha-Particle Bombardment. By C. W. Sheppard and W. L. Whitehead 32
Fort Blend, Waller, and Harris Counties, Texas, Geology of Katy Field. By A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
Fossil Plants and Jurassic-Cretaceous Boundary in Montana and Alberta. By Roland W. Brown 238
Fossils, Paleozoic Guide, Conodonts as. By Samuel P. Ellison, Jr. 93
Framework, Tectonic, of Northwestern South America. By Fritz E. von Estorff. 581
———. Discussion by Victor Oppenheim 1589
———. Discussion by Fritz E. von Estorff 2040
France, Petroleum Geology of Acquitaine Basin. By A. J. Eardley 1517
Frye, John C., Price, W. Armstrong, and Elias, Maxim K. Algae Reefs in Cap Rock of Ogalalla Formation on Llano Estacado Plateau, New Mexico and Texas 1742
Fuellhart, Donald Egbert. Memorial by Dugald Gordon 468
Fugitt, Le Roy, and Montgomery, Porter A., Jr. Developments in Texas Panhandle in 1945 925
Functions and Organization of Geologic Names and Correlations Committee. By Henry J. Morgan, Jr. The Association Round Table. 2079
Future of the Reearch Library and the Scholar, a Problem and Its Solution. By Fremont Rider. Review by Marcus A. Hanna 1592

Garvin County, Oklahoma, Elmore Embayment. Geological Note by Robert R. Wheeler . 2034
Gas and Oil Field Development in United States, 1944. By National Oil Scouts and Landmen's Association. Review by W. A. Ver Wiebe 353
General Bibliographies on Geological Material 1326
General Geological Material—National and Continental in Area. 1323
General Geology and Occurrence of Oil in Florida. By E. D. Pressler. Abstract 1965
Geographic Distribution of Members. The Association Round Table 769
Geologia de Bolivia, by F. Ahlfeld. Review by Norman D. Newell 2065
Geologic Contribution of a State to the Oil Industry. By Robert L. Bates. Abstract . . . 751
Geologic Names and Correlations Committee, Functions and Organization of. By Henry J. Morgan, Jr. The Association Round Table. 2079
Geologic Tool, Grain Roundness Valuable as. By Gordon Rittenhouse 1192

Geological Attack, The. By M. G. Cheney 1077
Geological Case Histories, Publication of. By Henry C. Cortes 1095
Geological-Geophysical Exploration, Recent Trends in. By R. Clare Coffin 2013
Geological Material, General—National and Continental in Area 1323
———, Specific—State and Province in Area 1337
Geological Notes 111, 348, 606, 711, 1051, 1198, 1306, 1585, 1764, 1910, 2034
Geological Occurrence of Oil in United Kingdom with Reference to Present Exploratory Operations. By H. R. Lovely. 1444
Geological Reconnaissance in Southeastern Peru. By Victor Oppenheim 254
——— in Southeastern Perú. Discussion by H. E. Parsons 1053
Geological Results of Search for Oilfields in Great Britain. By G. M. Lees and A. H. Taitt. Review by D. A. Greig 1591
Geologist in World War II—A Memorial. By A. Rodger Denison 802
Geologists in Service (European Theater). By Paul H. Price. Abstract 740
Geologists' Place in Service. By Paul H. Price 1115
Geology as a Profession. At Home and Abroad 1219
——— of Aliso Canyon, Field, Los Angeles County, California. By Claude E. Leach. Abstract 746
——— of Basement Complex, Edison Oil Field, Kern County, California. By J. H. Beach and Harry Campbell. Abstract 2090
——— of Katy Field, Waller, Harris, and Fort Bend Counties, Texas. By A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
——— of Maracaibo Basin, Venezuela. By F. A. Sutton 1621
———. By F. A. Sutton. Abstract 744, 1621
——— of the Gilbertown Field, Choctaw County, Alabama. By A. M. Current. Abstract . . 1967
——— of Tierra del Fuego, South America. By Joseph Hollister. Abstract. The Association Round Table 130
——— of West Tepetate Oil Field, Jefferson Davis Parish, Louisiana. By Fred W. Bates and Jay B. Wharton. Abstract 1966
———, Petroleum, of Aquitaine Basin, France, By A. J. Eardley 1517
Geology and Science Legislaton. By Carey Croneis 1104
Geotectonic Subdivisions of Earth History. By Hans Stille. Review by W. A. Ver Wiebe . 1200
German Oil Fields, Status of. By Frank Reeves 1546
Glaessner, M. F. Principles of Micropaleontology. Review by Brooks F. Ellis 1201
Glendora Volcanics. By John S. Shelton. Abstract 2088
Golden, John Munro. Memorial by John H. Wilson 1970
Golden-Morrison Area, Jefferson County, Colorado, Stratigraphy of. By L. W. LeRoy . . 1055
Gordon, Dugald. Memorial of Donald Egbert Fuellhart 468
Grain Roundness—A Valuable Geologic Tool. By Gordon Rittenhouse 1192
Grain Size in Carbonate Rock. Geological Note by Ronald K. DeFord 1921
Gramp's Field, Archuleta County, Colorado. By W. A. Waldschmidt 561
Grand Canyon of Arizona, Faulting in East Part of. By C. E. Van Gundy. 1899
Grand Canyon Region, Cambrian History of. By Edwin D. McKee and Charles E. Resser. Review 282
Graton, L. C., Williams, Howel, and Dorf, Erling. Paracutin Volcano, Mexico. Review by John L. Ferguson 121
Gravity in the East Indies and Its Interpretation. By F. A. Vening Meinesz. Abstract . . 743
Great Britain, Geological Results of Search for Oilfields in. By G. M. Lees and A. H. Taitt. Review by D. A. Greig 1591
Greig, D. A. Review of Geological Results of Search for Oilfields in Great Britain, by G. M. Lees and A. H. Taitt 1591
Guide Fossils, Paleozoic, Conodonts as. By Samuel P. Ellison, Jr. 93
Gulf Coast of Louisiana, Developments in 1945. By Fred W. Bates and Jay B. Wharton, Jr. 999
———, Upper, of Texas, Developments in 1945. By Donald M. Davis and Carl F. Beilharz 991

Half-Page Method of Manuscript Preparation. Geological Note by W. Armstrong Price . 1198
Hanna, Marcus A. Review of The Scholar and the Future of the Research Library, a Problem and Its Solution, by Fremont Rider 1592
Hanna, M. A., and Lowman, S. W. Research Committee Calendar and Schedule. Research Note. 1950
Harbolite: A Carbonaceous Hydrocarbon. Geological Note by Cevat E. Tasman 1051
Hardenberg, H. J. Developments in Michigan in 1945. 886
Harris, R. M., and Alexander, C. W. Abstract 1964
Harris and Waller Counties, Texas, Stratigraphy of. By R. L. Beckelhymer 52

Harris, Waller, and Fort Bend Counties, Texas, Geology of Katy Field. By A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
Hawkins Field, Wood County, Texas. By E. A. Wendlandt, T. H. Shelby, Jr., and John S. Bell 1830
———. By E. A. Wendlandt, T. H. Shelby, and John Bell. Abstract 746
Hazzard, Roy T. Abstract. 1966
Hedberg, H. D. Review of Report of Exploration for Oil in British Guiana, by H. G. Kugler *et al.* 120
Heidelberg Field, Jasper County, Mississippi. By Tom McGlothlin. Abstract 1967
Heidelberg Field, Mississippi, Rowell Well No. 1. Discussion by Lloyd W. Stephenson . . 275
Henbest, Lloyd G. Abstract 750
Hendricks, Thomas A. Natural Resources Section in Japan and Korea. Geological Note . 119
Hershey, Lewis B. Selective Service Memoranda 115 and 115-M. The Association Round Table 142
Hewett, D. F. Abstract 2091
Heyl, Allen V., Jr., and Agnew, Allen F. Quimbys Mill, New Member of Platteville Formation, Mississippi Valley. Geological Note 1585
Higgs, M. T., and Weaver, Paul. Abstract 749
Highlight of Washington and Oregon Biostratigraphy. By R. Stanley Beck. Abstract . . 2088
Hill, W. P. T. Abstract 740
Historical Notes on the Geology of Mississippi. By Urban B. Hughes. Abstract 1963
History of Reserves and Production of Natural Gas and Natural Gas Liquids in Texas. By Perry Olcott 1123
———. By D. Perry Olcott. Abstract 742
Hobson, H. D., and Coenen, E. J. Abstract 2090
Hoffmeister William S., and Robinson, Van Daniel. Developments in South Arkansas and North Louisiana in 1945 1007
Hogan, Dana. Memorial by J. R. Pemberton 1066
Holden, Roy J. Memorial by Heath M. Robinson 464
Hollister, Joseph. Geology of Tierra del Fuego, South America. Abstract. The Association Round Table 130
Holman, Eugene. Facing Forward 1099
Honorary Member—William Harvey Emmons. By A. I. Levorsen. The Association Round Table 733
——— Elias Howard Sellards. By M. G. Cheney. The Association Round Table 735
Hoots, Harold W., chairman. Report of Resolutions Committee. The Association Round Table 775
Hotchkiss, William O. Distinguished Lecture Tour. At Home and Abroad 1977
Houston Geological Society Student Awards. The Association Round Table . . . 1069, 1210
Houston Geological Society Study Groups. At Home and Abroad 474
Howe, Henry V. Abstract 1965
Howell, J. V., and Levorsen, A. I. Directory of Geological Material in North America . . 1321
———. Foreword, Directory of Geological Material in North America 1322
Huddle, John W., Thomas, C. R., and Bass, N. W. Abstract. 749
Hughes, Aden W. Abstract 2087
Hughes, Donald Dudley. Memorial by Eric K. Craig 1786
Hughes, Urban B. Abstract 1963
Hume, George S. Development in Canada in 1945 851
Hunt, Charles B. Abstract. 741
Hutchins, R. M., Jr., Allison, A. P. Beckelhymer, R. L., Benson, Don G., Lewis, Ray C., O'Bannon, P. H., Self, S. R., and Warner, C. A. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Hydrocarbon, Carbonaceous: Harbolite. Geological Note by Cevat E. Tasman 1051
Hydrocarbons, Formation of, from Fatty Acids by Alpha-Particle Bombardment. By C. W. Sheppard and W. L. Whitehead 32

Interim Report of Research Committee. By S. W. Lowman. Research Note 265
Investigations, Recent, by United States Geological Survey of Petroleum Possibilities in Alaska. By John C. Reed. 1433

"Jacob Staff" and Measurements of Stratigraphic Sequences. Geological Note by J. A. Broggi 716, 1934
Japan and Korea, Natural Resources Section in. Geological Note by Thomas A. Hendricks 119
Jenkins, H. D., and McGee, D. A. West Edmond Oil Field, Central Oklahoma 1797
Joint Annual Meeting, Stevens Hotel, Chicago, April 1-4, 1946. Announcement. The Associa-

tion Round Table 156, 289, 460
Judith Basin, Montana, Ellis, Amsden, and Big Snowy Group. By Paul T. Walton . . . 1294
Jurassic-Cretaceous Boundary and Fossil Plants in Montana and Alberta. By Roland W. Brown 238

Kansas, Central, Buried Pre-Cambrian Hills in Northeastern Barton County. By Robert F. Walters 660
———, Central, Siluro-Devonian Strata in. By Hall Taylor 1221
———, Kinderhook Dolomite of Sedgwick County. By W. A. Ver Wiebe 1747
Katy Field, Waller, Harris, and Fort Bend Counties, Texas, Geology of. By A. P. Allison, R. L. Becklhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
Kinderhook Dolomite of Sedgwick County, Kansas. By W. A. Ver Wiebe 1747
King, Philip B. Report of Sub-Committee on Tectonics 2042
King, Robert E. Stratigraphy of Oil Producing Zones of Pre-San Andres Formations of Southeastern New Mexico. Review by E. Russell Lloyd 278
Kinney, Douglas M. Age of Penters Chert, Batesville District, Arkansas. Geological Note. . 611
Knebel, G. M. Abstract 748
———. Progress Report on A.P.I. Research Project No. 43—Transformation of Organic Material into Petroleum. Research Note 1935
Koester, Edward A., chairman. Minutes of Special Meeting. The Association Round Table . 798
———. Minutes, Thirty-First Annual Business Meeting, Stevens Hotel, Chicago, April 1–4, 1946. The Association Round Table 755
———. Report of Secretary-Treasurer. The Association Round Table 764
———. Review of The Wildcatters, by Samuel W. Tait, Jr. 1308
Koester, Edward A., and Cole, Virgil B. Developments in North Mid-Continent in 1945 . 895
Korea and Japan, Natural Resources Section in. Geological Note by Thomas A. Hendricks . 119
Krampert, E. W. Developments in Rocky Mountain Region in 1945 912
Krueger, Max L., and Thomas, Horace D. Late Paleozoic and Early Mesozoic Strata of the Uinta Mountains, Utah. Abstract. The Association Round Table 131
Krueger, Max L., and Thomas, Horace D. Late Paleozoic and Early Mesozoic Stratigraphy of Uinta Mountains, Utah 1255
Kugler, H. G., *et al.* Report on Exploration for Oil in British Guiana. Review by H. D. Hedberg 120

Lahee, Frederic H. Abstract. 749
———, chairman. Report of Committee on Statistics of Exploratory Drilling. The Association Round Table 791
———. Statstics of Exploratory Drilling in 1945 813
Laird, Wilson M., and Sloss, Laurence L. Abstract 751
Lake, C. L., Allison, A. P., Beckelhymer, R. L., Benson, Don G., O'Bannon, P. H., Lewis, Ray C., Hutchins, R. M., Jr., Self, S. R., and Warner, C. A., Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Lammers, Edward C. H. Notes on Rocky Mountain Thrust Faults. Abstract. The Association Round Table 132
Landes, Kenneth K. Porosity through Dolomitization 305
Landslides—Ventura Avenue Oil Field. By Claude Leach and Henry H. Neel. Abstract. The Association Round Table 134
Lantern Slides, Preparation of. Geological Note by G. Zuloaga 1771
Las Animas Arch in Baca, Las Animas, and Otero Counties, Colorado, Correlation of Paleozoic Rocks across. By John C. Maher 1756
Late Paleozoic and Early Mesozoic Stratigraphy of Uinta Mountains, Utah. By Horace D. Thomas and Max L. Krueger 1255
Late Paleozoic and Early Mesozoic Strata of the Uinta Mountains, Utah. By Horace D. Thomas and Max L. Krueger. Abstract. The Association Round Table 131
Leach, Claude E. Abstract 746
Leach, Claude, and Neel, Henry H. Landslides—Ventura Avenue Oil Field. Abstract. The Association Round Table 134
Ledingham, Glenn. W. Abstract 2090
Lees, G. M., and Taitt, A. H. Geological Results of Search for Oilfields in Great Britain. Review by D. A. Greig 1591
LeRoy, L. W. Stratigraphy of Golden-Morrison Area, Jefferson County, Colorado . . . 1055
Levings, W. S., Van Tuyl, F. M., and Others. Review of Petroleum Geology in 1945. Review by Robert F. Walters 1955
Levorsen, A. I. Survey of College Students Majoring in Geology. Research Note 730
———. William Harvey Emmons—Honorary Member. The Association Round Table . . 733

Levorsen, A. I. Abstract 2089
Levorsen, A. I., and Howell, J. V. Directory of Geological Material in North America . . 1321
———. Foreword, Directory of Geological Material in North America 1322
Limestones, Spectrochemical Sample Logging of. By L. L. Sloss and S. R. B. Cooke . . . 1888
Link, Theodore A. Abstract 747
Llano Estacado Plateau, New Mexico and Texas, Algae Reefs in Cap Rock of Ogallala Formation on. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
Lloyd, A. M., and Totten, R. B. Abstract 1967
Lloyd, E. Russell. Review of Stratigraphy of Oil Producing Zones of Pre-San Andres Formations of Southeastern New Mexico, by Robert E. King 278
Lockett, J. R. Abstract 743
Loetterle, G. J., and Shelby, T. H., Jr. Developments in East Texas during 1945 . . . 980
Longwell, Chester R. Abstract 742
Los Banos District, West Border of San Joaquin Valley, California, Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of. By S. N. Daviess 63
Louisiana, Gulf Coast of, Developments in 1945. By Fred W. Bates and Jay B. Wharton, Jr. 999
———, North, and South Arkansas, Developments in 1945. By William S. Hoffmeister and Van Daniel Robinson 1007
Lovely, H. R. Geological Occurrence of Oil in United Kingdom with Reference to Present Exploratory Operations 1444, 1959
Lower Middle Ordovician of Southwest Virginia and Northeast Tennessee. By Chilton E. Prouty 1140
Lower Pennsylvanian Terminology in Central Texas. By R. C. Spivey and T. G. Roberts . 181
Lowman, S. W., and Hanna, M. A. Research Committee Calendar and Schedule. Research Note 1950
Lowman, Shepard W., chairman. Report of Research Committee. The Association Round Table 787
———. Final Reports on a Reconnaissance Survey of Research Needs in Petroleum Geology by the American Association of Petroleum Geologists Research Committee, 1945–1946. Foreword 2042
———. Interim Report of Research Committee. Research Note 265

MacNeil, F. Stearns. Abstract 1965
Maher, John C. Abstract 752
———. Correlation of Paleozoic Rocks across Las Animas Arch in Baca, Las Animas, and Otero Counties, Colorado 1756
Manuscript Preparation, Half-Page Method of. Geological Note by W. Armstrong Price . 1198
Maracaibo Basin, Venezuela, Geology of. By F. A. Sutton 1621
Marine Microbiology. By Claude E. ZoBell. Review by Robert W. Stone 1308
Marine Sedimentary Cycles of Tertiary in Mississippi Embayment. By Max Bornhauser. Abstract 745
Marine Sediments, Studies on Redox Potential of. By Claude E. ZoBell 477
Martens, James H. C. West Virginia Geological Survey Collection of Drill Cuttings. Geological Note 350
McCoy, Alexander Watts. Memorial by the Executive Committee 292
McGee, D. A. Abstract 746
McGee, D. A., and Jenkins, H. D. West Edmond Oil Field, Central Oklahoma 1797
McGlothlin, Tom. Abstract 1967
McKee, Edwin D., and Resser, Charles E. Cambrian History of Grand Canyon Region. Review 282
McLellan, H. J. Raccoon Bend Salt Dome, Austin County, Texas. Geological Note . . . 1306
Meinesz, F. A. Vening. Abstract 746
Mellen, F. F. Abstract 1963
Membership Applications 155, 302, 629, 799, 1059, 1208, 1588, 1979, 2079
Members of A.A.P.G. in Armed Forces of United States and Allied Nations. The Association Round Table 782
——— in Civilian Capacities with Government in War Effort. The Association Round Table 783
Membership List of the Association, March 2, 1946. The Association Round Table . . . 361
———, Supplementary, September 1, 1946. The Association Round Table 1610
Memorial 292, 463, 633, 802, 1065, 1213, 1315, 1616, 1786, 1969
——— The Geologist in World War II. By A. Rodger Denison 802
Mesozoic, Early, and Late Paleozoic Stratigraphy of Uinta Mountains, Utah. By Horace D. Thomas and Max L. Krueger 1255
Mesozoic Igneous Rocks of the Northern Gulf Coastal Plain. By C. L. Moody. Abstract . 1966

Method of Election of Officers, Final Report of Committee on. By John G. Bartram. The Association Round Table 134
——— of Manuscript Preparation, Half-Page. Geological Note by W. Armstrong Price . . 1198
Mexico, Percutin Volcano. By L. C. Graton, Howel Williams, and Erling Dorf. Review by John L. Ferguson 121
———, Stratigraphy Near Caborca, Northwest Sonora. Geological Note by G. Arthur Cooper and Alberto R. V. Arellano 606
Meyerhoff, Howard A. Abstract 744
Michigan, Developments in 1945. By H. J. Hardenberg 886
Micropaleontology of Upper Cretaceous and Paleocene in Western Ecuador. By Hans E. Thalmann 337
———, Principles of: By M. F. Glaessner. Review by Brooks F. Ellis 1201
Mid-Continent, North, Developments in 1945. By Virgil B. Cole and Edward A. Koester . 895
Mid-Continent Regional Meeting, Wichita, Kansas, January 16–17, 1947. The Association Round Table 1784, 1968, 2078
——— Announcement. The Association Round Table 1615
Mid-Year Meeting, Biloxi, Mississippi, October 24, 25, 26. Announcement. The Association Round Table 1212
Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California. By S. N. Daviess . . . 63
Minutes of Business Committee, Stevens Hotel, Chicago, 1946. By Robert W. Clark, chairman. The Association Round Table 794
——— of Special Meeting, Stevens Hotel, Chicago, 1946. By Edward A. Koester, chairman. The Association Round Table 798
———, Thirty-First Annual Business Meeting, Stevens Hotel, Chicago, April 2 and 4, 1946. By Edward A. Koester. The Association Round Table 755
Miocene Conglomerates of Puente and San Jose Hills, California. By A. O. Woodford, T. G. Moran, and J. S. Shelton 514
Miocene Time, Evolution of Reef Corals in East Indies since. By J. H. F. Umbgrove . . 23
Mississippi, Rowell Well No. 1, Heidelberg Field. Discussion by Lloyd W. Stephenson . . 275
Mississippi Valley, Quimbys Mill, New Member of Platteville Formation. Geological Note by Allen F. Agnew and Allen V. Heyl, Jr. 1585
Mississippian Subsurface Formation, New, in Southeast Nebraska, Boice Shale. Geological Note by E. C. Reed 348
Montana, Ellis, Amsden, and Big Snowy Group, Judith Basin. By Paul T. Walton . . . 1294
Montana and Alberta, Fossil Plants and Jurassic-Cretaceous Boundary in. By Roland W. Brown 238
Montgomery, Porter A., Jr., and Fugitt, Le Roy. Developments in Texas Panhandle in 1945 925
Monroe, Watson H. Abstract 1963
Monroe, Watson H., Conant, Louis C., and Eargle, D. Hoye. Pre-Selma Upper Cretaceous Stratigraphy of Western Alabama 187
Moody, C. L., chairman. Report of Trustees of Research Fund. The Association Round Table 777
———. Abstract 1966
———. East Texas Geological Society Field Trip, December 1 and 2, 1945. Discussion . . 276
———. Memorial of Albert Foster Crider 633
Moody, Graham B. Abstract 2088
———. Developments in California in 1945 829
Moore, Fred H., chairman. Report of Distinguished Lecture Committee. The Association Round Table 776
Moran, T. G., Woodford, A. O., and Shelton, J. S. Miocene Conglomerates of Puente and San Jose Hills, California 514
Morgan, Henry J., Jr. Functions and Organization of Geologic Names and Correlations Committee. The Association Round Table 2079
Morrison-Golden Area, Jefferson County, Colorado, Stratigraphy of. By L. W. LeRoy . . 1055
Moulton, Gail F. Memorial of Fred Burchard Ely 1616
Muller, Siemon Wm. Abstract 2089
Multiple Sands, Suggestions for Naming. Geological Note by Roy E. Dickerson and H. W. Straley, III. 115
Murray, Grover E., Jr. Abstract 1964

Naming Multiple Sands, Suggestions for. Geological Note by Roy E. Dickerson and H. W. Straley, III 115
National Oil Scouts and Landmen's Association. Oil and Gas Field Development in United States, 1944. Review by W. A. Ver Wiebe 353

National Research Council, Report of Representative on Division of Geology and Geography of, 1945–1946. By M. G. Cheney, representative. The Association Round Table . . 792
Natural Gas and Natural Gas Liquids, Production of, and Reserves in Texas, History of. By Perry Olcott 1123
Natural Gas Liquids and Natural Gas, Production of, and Reserves in Texas, History of. By Perry Olcott 1123
Natural Resources Section in Japan and Korea. Geological Note by Thomas A. Hendricks . 119
Nebraska, Southeast, Boice Shale, New Mississippian Subsurface Formation in. Geological Note by E. C. Reed 348
Neel, Henry H., and Leach, Claude. Landslides—Ventura Avenue Oil Field. Abstract. The Association Round Table 134
Nehalem River Basin, Upper, Northwestern Oregon, Stratigraphy of. By W. C. Warren and Hans Norbisrath 213
Nelson, Loyal E. Abstract 2091
New General Staff Group to Coördinate Military, Civilian Research Projects. At Home and Abroad 1072
New Geologic Map of Tertiary Formations of Georgia. By F. Stearns MacNeil. Aostract . 1965
New Member of Platteville Formation (Quimbys Mill), Mississippi Valley. Geological Note by Allen F. Agnew and Allen V. Heyl, Jr. 1585
New Mexico, Northern, Western New Mexico, and Arizona. Developments in 1945. By Robert L. Bates 958
———, Southeast, and West Texas, Correlation of Permian of. By John W. Skinner . . 1857
———, Southeastern, Stratigraphy and Oil Producing Zones of Pre-San Andres Formation of. By Robert E. King. Review by Russell E. Lloyd 278
———, Southeastern, and West Texas. Developments in 1945. By E. Hazen Woods, C. L. Chase, and J. E. Bucher 930
———, Western, Northern New Mexico, and Arizona. Developments in 1945. By Robert L. Bates 958
New Mexico and Texas, Algae Reefs in Cap Rock of Ogallala Formation of Llano Estacado Plateau. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
New Rock-Color Chart for Field Use. The Association Round Table 2091
Newell, Norman D. Review of *Geologia de Bolivia*, by F. Ahlfeld 2065
Nominating Committee, Report of. By Frank R. Clark, chairman. The Association Round Table 1609
Nominees for Officers, 1947–1948 2082
Norbisrath, Hans, and Warren, W. C. Stratigraphy of Upper Nehalem River Basin, Northwestern Oregon 213
Normal Fault Structures and Others. By Bailey Willis 1875
North Carolina, Continental Slope of, and Atlantic Coastal Plain Floor. Geological Note by W. F. Prouty 1917
North Louisiana and South Arkansas, Developments in 1945. By William S. Hoffmeister and Van Daniel Robinson 1007
North and West-Central Texas, Developments in 1945. By North Texas Geological Society. 963
North Texas Geological Society. Developments in North and West-Central Texas in 1945. 963
Northwestern South America, Tectonic Framework of. By Fritz E. von Estorff 581
———. Discussion by Victor Oppenheim 1589
———. Discussion by Fritz E. von Estorff 2040
Northwest Sonora, Mexico, Stratigraphy Near Caborca. Geological Note by G. Arthur Cooper and Alberto R. V. Arellano 606
Northwestern Oregon, Stratigraphy of Upper Nehalem River Basin. By W. C. Warren and Hans Norbisrath 213
Notes on Geology of Deep Coles Levee Well, Kern County, California. By N. L. Taliaferro and W. F. Barbat. Abstract. The Association Round Table 132
——— on Rocky Mountain Thrust Faults. By Edward C. H. Lammers. Abstract. The Association Round Table 132
——— on the Stratigraphy of the Santa Maria District. By Aden W. Hughes. Abstract . 2087
Nugent, L. E., Jr. Some Developments in Aerial Photography during the War. Geological Note. 725

Oakwood, T. S. Distinguished Lecture. At Home and Abroad 476
O'Bannon, P. H., Allison, A. P., Beckelhymer, R. L., Lake, C. L., Lewis, Ray C., Hutchins, R. M., Jr., Benson, Don G., Self, S. R., and Warner, C. A. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Oceanography and Petroleum Geology. By Fred B. Phleger, Jr. Abstract 741

Oceans and Continents, Distribution of. By W. G. Woolnough 1981
Occurrence of Oil, Geological, in United Kingdom with Reference to Present Exploratory Operations. by H. R. Lovely 1444, 1959
Officers, Nominees for, 1947–1948 2082
Ogallala Formation on Llano Estacado Plateau, New Mexico and Texas, Algae Reefs in Cap Rock of. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
Oil in British Guiana, Report on Exploration for. By H. G. Kugler *et al.* Review by H. D. Hedberg 120
Oil in United Kingdom, Geological Occurrence of, with Reference to Present Exploratory Operations. By H. R. Lovely 1444, 1959
Oil and Gas Field Development in United States, 1944. By National Oil Scouts and Landmen's Association. Review by W. A. Ver Wiebe 353
Oil Basins of East Indian Archipelago. By H. M. Schuppli 1
Oil Bodies, Submarine Slumping and Location of. By Rhodes W. Fairbridge 84
Oil Field Development—Petroleum Production Enginneering, by Lester Charles Uren. Review by Harry H. Power 2064
Oil Fields, Asphaltic Sands Found to Occur in. Geological Note by D. B. Taliaferro and K. E. Stanfield 616
——— in Great Britain, Geological Results of Search for. By G. M. Lees and A. H. Taitt. Review by D. A. Greig 1591
——— of Carpathian Region. By Ray P. Walters 319
———, Status of German. By Frank Reeves 1546
Oil Possibilities, Outline for Classification of. Geological Note by Frank Reeves 111
Oil Producing Zones and Stratigraphy of Pre-San Andres Formations of Southeastern New Mexico. By Robert E. King. Review by E. Russell Lloyd 278
Oklahoma, Central, West Edmond Oil Field. By D. A. McGee and H. D. Jenkins . . . 1797
———, Elmore Embayment, Garvin County. Geological Note by Robert R. Wheeler . . 2034
———, Developments in 1945. By Joseph L. Borden 902
Olcott, D. Perry. Abstract 742
Olcott, Perry. History of Reserves and Production of Natural Gas and Natural Gas Liquids in Texas 1123
Oölite and Oölith. Geological Note by Ronald K. DeFord and W. A. Waldschmidt . . . 1587
Oppenheim, Victor. Geological Reconnaissance in Southeastern Peru 254
———. Tectonic Framework of Northwestern South America, by Fritz E. von Estorff. Discussion 1589
Organic Material, Transformation of, into Petroleum. Progress Report on A.P.I. Research Project No. 43. By G. M. Knebel 1935
———, Transformation of, into Petroleum under Geological Conditions (The Geological Fence) By Ben B. Cox 645
Organization, Functions and, of Geologic Names and Correlations Committee. By Henry J. Morgan, Jr. The Association Round Table 2079
Ordovician, Lower Middle, of Southwest Virginia and Northeast Tennessee. By Chilton E. Prouty 1140
Oregon, Northwestern, Stratigraphy of Upper Nehalem River Basin. By W. C. Warren and Hans Norbisrath 213
Origin and Migration of Oil into Sespe Red Beds. By Thomas L. Bailey. Abstract . . . 2089
Origin of Continental Shelves. By J. H. F. Umbgrove 249
Ostracoda in Paleogeography. By W. T. Rothwell, Jr. Abstract 2087
Outline for Classifications of Oil Possibilities. Geological Note by Frank Reeves 111

Pacific, Tectonic Development of the Americas to Form the East Rim of. By Hans Stille. Review by W. A. Ver Wiebe 1054
Pacific Section Abstracts. The Association Round Table 128, 2087
Pacific Section Annual Meeting, Los Angeles, California, November 7–8, 1946 2087
Pacific Section Twenty-Second Annual Meeting, November 8 and 9, 1945. Abstracts. The Association Round Table 128, 2078
Paleocene and Upper Cretaceous in Western Ecuador, Micropaleontology of. By Hans E. Thalmann 337
Paleocene, Late Upper Cretaceous, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California, Mineralogy of. By S. N. Daviess 63
Paleontologists, Expanding Activities of. By John R. Sandidge 1088
Paleozoic, Late, and Early Mesozoic Stratigraphy of Uinta Mountains, Utah. By Horace D. Thomas and Max L. Krueger 1255
Paleozoic Guide Fossils, Conodonts as. By Samuel P. Ellison, Jr. 93

Paleozoic Rocks, Correlation of, across Las Animas Arch in Baca, Las Animas, and Otero Counties, Colorado. By John C. Maher . . . 1756
Pan-American Congress of Mining Engineering and Geology. At Home and Abroad . . . 1620
Papers on S.E.G. Program. Joint Annual Meeting, 1946 . . . 754
——— on S.E.P.M. Program, Joint Annual Meeting, 1946 . . . 752
Paracutin Volcano, Mexico. By L. C. Graton, Howel Williams, and Erling Dorf. Review by John L. Ferguson . . . 121
Parker, Frank S. Results of California Exploration during the War Period. Abstract. The Association Round Table . . . 128
Parsons, H. E. Geological Reconnaissance in Southeastern Perú. Discussion . . . 1053
Past and Present Officers of the Association. The Association Round Table . . . 360
Pemberton, J. R. Memorial of Dana Hogan . . . 66
Pennsylvanian, Lower, Terminology in Central Texas. By R. C. Spivey and T. G. Roberts . 181
Penters Chert, Batesville District, Arkansas, Age of. Geological Note by Douglas M. Kinney 611
Permafrost and Related Engineering Problems. By Siemon Wm. Muller. Abstract . . . 2089
Permian of West Texas and Southeast New Mexico, Correlation of. By John W. Skinner . 1857
———, Titles of Papers on, Joint Annual Meeting, 1946 . . . 753
Peru, Southeastern, Geological Reconnaissance in. By Victor Oppenheim . . . 254
———. Discussion by H. E. Parsons . . . 1053
Petroleum, Transformation of Organic Material into, under Geological Conditions (The Geological Fence). By Ben B. Cox . . . 645
Petroleum Engineering, Trends and Developments in. By Stuart E. Buckley . . . 1131
Petroleum Geology of Aquitaine Basin, France. By A. J. Eardley . . . 1517
Petroleum Geology in 1945, Review of. By F. M. Van Tuyl, W. S. Levings, and Others. Review by Robert F. Walters . . . 1955
Petroleum on the Continental Shelves. By Wallace Pratt. Abstract . . . 2090
Petroleum Possibilities in Alaska, Recent Investigations of, by United States Geological Survey. By John C. Reed . . . 1433
Petroleum Production Engineering—Oil Field Development, by Lester Charles Uren. Review by Harry H. Power . . . 2064
Phleger, Fred B., Jr. Abstract . . . 741
Photography, Aerial, Some Developments in, during the War. Geological Note by L. E. Nugent, Jr. . . . 725
——— of Megafossils. Discussion by Floyd K. Beach . . . 620
Physical Measurements in Wells for Geologic Data. By M. T. Higgs and Paul Weaver. Abstract . . . 749
Plants, Fossil, and Jurassic-Cretaceous Boundary in Montana and Alberta. By Roland W. Brown . . . 238
Platteville Formation, Quimbys Mill, New Member of, Mississippi Valley. Geological Note by Allen F. Agnew and Allen V. Heyl, Jr. . . . 1585
Porosity through Dolomitization. By Kenneth K. Landes . . . 305
Post-Triassic Evolution of Part of Atlantic Coastal Region. By W. T. Thom, Jr. . . . 742
Power, Harry H. Review of Petroleum Production Engineering—Oil Field Development, by Lester Charles Uren . . . 2064
Pratt, Wallace. Abstract . . . 2090
———. Distinguished Lecture Tour. At Home and Abroad . . . 1977
Pre-Cambrian Hills, Buried, in Northeastern Barton County, Central Kansas. By Robert F. Walters . . . 660
Preparation of Lantern Slides. Geological Note by G. Zuloaga . . . 1771
Pre-San Andres Formations of Southeastern New Mexico, Stratigraphy and Oil Producing Zones of. By Robert E. King. Review by E. Russell Lloyd . . . 278
Pre-Selma Upper Cretaceous Stratigraphy of Western Alabama. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle . . . 187
President's Award, Recipient of—Horace Gardiner Richards. By Frank R. Clark. The Association Round Table . . . 736
Pressler, E. D. Abstract . . . 1965
Price, Paul H. Abstract . . . 740
———. Distinguished Lecture Tour. At Home and Abroad . . . 1976
———. Geologists' Place in Service . . . 1115
Price, W. Armstrong. Abstract . . . 745
———. Half-Page Method of Manuscript Preparation. Geological Note . . . 1198
Price, W. Armstrong, Elias, Maxim K., and Frye, John C. Algae Reefs in Cap Rock of Ogallala Formation on Llano Estacado Plateau, New Mexico and Texas . . . 1742
Principles of Micropaleontology. By M. F. Glaessner. Review by Brooks F. Ellis . . . 1201

Processes and Products of Weathering, A Survey. By Parry Reiche. Review by Ronald K. DeFord 280
Production Engineering, Petroleum—Oil Field Development, by Lester Charles Uren. Review by Harry H. Power 2064
Production of Natural Gas and Natural Gas Liquids, and Reserves in Texas, History of. By Perry Olcott 1123
Program of Technical Papers. The Association Round Table 740
Progress Report on A.P.I. Research Project No. 43—Transformation of Organic Material into Petroleum. Research Note by G. M. Knebel 1935
———. Abstract 748
Prouty, Chilton E. Lower Middle Ordovician of Southwest Virginia and Northeast Tennessee 1140
Prouty, W. F. Atlantic Coastal Plain Floor and Continental Slope of North Carolina. Geological Note 1917
Publication of Geological Case Histories. By Henry C. Cortes 1095
Puente and San Jose Hills, California, Miocene Conglomerates of. By E. O. Woodford, T. G. Moran, and J. S. Shelton 514
Pulse of the Earth. By J. H. F. Umbgrove. Review by W. A. Ver Wiebe 279
Putnam, William C. Abstract 741

Quaternary Diastrophic Activity on Coastal Plain of Western Gulf of Mexico. By W. Armstrong Price. Abstract. 745
Quimbys Mill, New Member of Platteville Formation, Upper Mississippi Valley. Geological Note by Allen F. Agnew and Allen V. Heyl, Jr. 1585
Quotation Mark, Use of, in Science. Geological Note by J. E. Eaton 1928

Raccoon Bend Salt Dome, Austin County, Texas. Geological Note by H. J. McLellan . . 1306
Ramona Field, Los Angeles and Ventura Counties, California. By Loyal E. Nelson. Abstract 2091
Rangely Oil Field, Rio Blanco County, Colorado. By C. R. Thomas, John W. Huddle, and N. W. Bass. Abstract 749
Recent Investigations by the Geological Survey of Alaska Petroleum Possibilities. By John C. Reed. Abstract. The Association Round Table. 131
——— by United States Geological Survey of Petroleum Possibilities in Alaska. By John C. Reed 1433
Recent Publications . . . 122, 283, 354, 625, 731, 1055, 1202, 1309, 1593, 1772, 1956, 2067
Recent Trends in Geological-Geophysical Exploration. By R. Clare Coffin 2013
——— in Geological-Geophysical Exploration, and Methods of Improving the Use of Geophysical Data. By R. Clare Coffin. Abstract 748
Reconnaissance, Geological, in Southeastern Perú. Discussion by H. E. Parsons 1053
———, Geological, in Southeastern Peru. By Victor Oppenheim. 254
Redox Potential of Marine Sediments, Studies on. By Claude E. ZoBell 477
Reed, E. C. Boice Shale, New Mississippian Subsurface Formation in Southeast Nebraska. Geological Note 348
Reed, John C. Recent Investigations by the Geological Survey of Alaska Petroleum Possibilities. Abstract. The Association Round Table 131
———. Recent Investigations by United States Geological Survey of Petroleum Possibilities in Alaska 1433
Reed, Lyman C. San Pedro Oil Field, Province of Salta, Northern Argentina 591
Reef Corals in East Indies, Evolution of, since Miocene Time. By J. H. F. Umbgrove . . 23
Reeves, Frank. Outline for Classification of Oil Possibilities. Geological Note 111
———. Status of German Oil Fields 1546
Relations between Kinds of Well Data and Apparent Faulting. Geological Note by H. H. Suter 1910
Relationship of Crude Oils and Stratigraphy in Parts of Oklahoma and Kansas. By Tulsa Geological Society Research Committee. Abstract 747
Regional and Oil-Field Papers. Abstracts 749
Reiche, Parry. A Survey of Weathering Processes and Products. Review by Ronald K. DeFord 280
Report, Final, of Committee on Method of Election of Officers. By John G. Bartram. The Association Round Table 134
——— of Business Committee. By Robert W. Clark, chairman. The Association Round Table 757
——— of Committee for Publication. By C. E. Dobbin, chairman. The Association Round Table 792
——— of Committee on Applications of Geology. By J. Brian Eby, chairman. The Associa-

tion Round Table 784
——— of Committee on Boy Scout Literature. By Max W. Ball, chairman. The Association Round Table 785
——— of Committee on Geologic Names and Correlations. By John G. Bartram, chairman. The Association Round Table 790
——— of Committee on Statistics of Exploratory Drilling. By F. H. Lahee, chairman. The Association Round Table 791
——— of Distinguished Lecture Committee. By Fred H. Moore, chairman. The Association Round Table 776
——— of Editor. By Gayle Scott. The Association Round Table 774
——— of Medal Award Committee. By Frank R. Clark, chairman. The Association Round Table 785
——— of National Service Committee. By F. L. Aurin, chairman. The Association Round Table 778
——— of Nominating Committee. By Frank R. Clark, chairman. The Association Round Table 1609
——— of President. By M. G. Cheney. The Association Round Table 761
——— of Representatives on Commission on Classification and Nomenclature of Rock Units. By C. W. Tomlinson, chairman. The Association Round Table 777
——— of Representative on Division of Geology and Geography of National Research Council, 1945–1946. By M. G. Cheney, representative. The Association Round Table. . . 792
——— of Research Fund Trustees. By C. L. Moody, chairman. The Association Round Table 777
——— of Resolutions Committee. By Harold W. Hoots, chairman. The Association Round Table 775
——— of Research Committee. By Shepard W. Lowman, chairman. The Association Round Table 787
——— of Secretary-Treasurer. By Edward A. Koester. The Association Round Table . . 764
——— of Sub-Committee on Tectonics. By Philip B. King 2042
——— of Trustees of Research Fund. By C. L. Moody. The Association Round Table . . 777
——— on Exploration for Oil in British Guiana. By H. G. Kugler *et al.* Review by H. D. Hedberg 120
Research Committee Calendar and Schedule. . Research Note by S. W. Lowman and M. A. Hanna 1950
———, Interim Report of. By S. W. Lowman. Research Note 265
Research Library, the Scholar and the Future of, a Problem and Its Solution. By Fremont Rider. Review by Marcus A. Hanna 1592
Research Needs in Petroleum Geology, Final Reports on a Reconnaissance Survey of, by the American Association of Petroleum Geologists Research Committee, 1945–1946. Foreword. By Shepard W. Lowman. 2042
Research Notes 265, 730, 1935, 1950, 2042
Reserves and Production of Natural Gas and Natural Gas Liquids in Texas, History of. By Perry Olcott 1123
Resources Section, Natural, in Japan and Korea. Geological Note by Thomas A. Hendricks . 119
Resser, Charles E., and McKee, Edwin D. Cambrian History of Grand Canyon Region. Review 282
Results of California Exploration during the War Period. By Frank S. Parker. Abstract. The Association Round Table 128
Résumé of Oil and Gas Developments in Canada and the United States in 1945. By C. E. Dobbin. Abstract 749
Retraining Program in Geology, Veterans. By W. H. Bradley 290
Review of Exploration and Development in 1945 813
——— Petroleum Geology in 1945, by F. M. Van Tuyl, W. S. Levings, and Others. Review by Robert F. Walters 1955
Reviews and New Publications . 120, 278, 353, 625, 731, 1054, 1200, 1308, 1591, 1772, 1955, 2064
Rich, John L. Abstract. 743
Richards, Horace Gardiner. Distinguished Lecture Tour. At Home and Abroad 1069
———. Recipient of President's Award. By Frank R. Clark. The Association Round Table . 736
Rider, Fremont. The Scholar and the Future of the Research Library, a Problem and Its Solution. Review by Marcus A. Hanna 1592
Rittenhouse, Gordon. Grain Roundness—A Valuable Geologic Tool 1192
Ritter, E. A. Memorial of Otto Dreher 1786
Roberts, T. G., and Spivey, R. C. Lower Pennsylvanian Terminology in Central Texas . . 181
Robinson, Ernest G. Memorial of Karl Howard Schilling 1969

Robinson, Heath M. Memorial of Roy J. Holden 464
Robinson, Van Daniel, and Hoffmeister, William S. Developments in South Arkansas and North Louisiana in 1945 1007
Rock-Color Chart, New for Field Use. The Association Round Table 2091
Rocky Mountain Region, Developments in 1945. By E. W. Krampert 912
Rothwell, W. T., Jr. Abstract 2087
Rowell Well No. 1, Heidelberg Field, Mississippi. Discussion by Lloyd W. Stephenson . . 275

Salta, Province of, Northern Argentina, San Pedro Oil Field. By Lyman C. Reed. 591
San Andres Formations, Pre-, of Southeastern New Mexico, Stratigraphy and Oil Producing Zones of. By Robert E. King. Review by E. Russell Lloyd 278
San Joaquin Valley, West Border of, California, Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District. By S. N. Daviess 63
San Jose and Puente Hills, California, Miocene Conglomerates of. By A. O. Woodford, T. G. Moran, and J. S. Shelton 514
San Pedro Oil Field, Province of Salta, Northern Argentina. By Lyman C. Reed 591
Sandidge, John R. Expanding Activities of Paleontologists 1088
Sands, Asphaltic, Found to Occur in Oil Fields. Geological Note by D. B. Taliaferro and K. E. Stanfield 616
Santiago Pool, Kern County, California. By Glenn W. Ledingham. Abstract 2090
Schilling, Karl Howard. Memorial by Ernest G. Robinson 1969
Scholar, The, and the Future of the Research Library, a Problem and Its Solution. By Fremont Rider. Review by Marcus A. Hanna 1592
Schroeder, W. C. Abstract 741
Science Legislation and Geology. By Carey Croneis 1104
Scott, Gayle. Report of Editor. The Association Round Table 774
Scott, Harold W. Distinguished Lecture Tour. At Home and Abroad 301
Scrafford, Bruce. Development in South Texas in 1945 972
Schuppli, H. M. Oil Basins of East Indian Archipelago 1
Search for Oilfields in Great Britain, Geological Results of. By G. M. Lees and A. H. Taitt. Review by D. A. Greig 1591
Sedgwick County, Kansas, Kinderhook Dolomite of. By W. A. Ver Wiebe 1747
Selected Well Logs of Colorado. By Clark F. Barb. 282
Selective Service Local Board Memorandum 115. Subject: Occupational Classification Other than Agriculture and Merchant Marine. By Lewis B. Hershey. The Association Round Table 142
Selective Service Local Board Memorandum 115-M. Subject: Special Consideration for Certain Students, Teachers, and Research Workers in Physical Sciences. By Lewis B. Hershey. The Association Round Table 144
Selective Service Act Extended. The Association Round Table 1064
Self, S. R., Allison, A. P., Beckelhymer, R. L., Benson, Don G., Hutchins, R. M., Jr., Lake, C. L., Lewis, Ray C., O'Bannon, P. H., and Warner, C. A. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Sellards, Elias Howard—Honorary Member. By M. G. Cheney. The Association Round Table 735
Service, Geologists' Place in. By Paul H. Price 1115
Shearer, Harold Kurtz. Memorial by J. E. Brantly 1315
Sheets, Martin M. Abstract 745
Shelby, T. H., Jr., and Loetterle, G. J. Developments in East Texas during 1945 . . . 980
Shelby, T. H., Wendlandt, E. A., and Bell, John. Abstract 746
Shelby, T. H., Jr., Wendlandt, E. A., and Bell, John S. Hawkins Field, Wood County, Texas . 1830
Shelton, J. S., Woodford, A. O., and Moran, T. G. Miocene Conglomerates of Puente and San Jose Hills, California 514
Shelton, John S. Abstract 2088
Sheppard, C. W., and Whitehead, W. L. Formation of Hydrocarbons from Fatty Acids by Alpha-Particle Bombardment 32
Shepard, Francis P. Abstract 2088
Shroeder, F. R., and Storey, J. B. Abstract 1967
Siluro-Devonian Strata in Central Kansas. By Hall Taylor 1221
Sinai (Egypt), Conodonts from Triassic of. Geological Note by D. B. Eicher 613
Skinner, John W. Correlation of Permian of West Texas and Southeast New Mexico . . 1857
Sloss, L. L., and Cooke, S. R. B. Abstract 749
———. Spectrochemical Sample Logging of Limestones 1888
Sloss, Laurence L., and Laird, Wilson M. Abstract 751

Slumping, Submarine, and Location of Oil Bodies. By Rhodes W. Fairbridge 84
Smith, Robert Hendee. Memorial by Benjamin A. Tator 1214
Society of Economic Paleontologists and Mineralogists, Titles of Papers on Program, Joint Annual Meeting, 1946 752
Society of Exploration Geophysicists, Titles of Papers on Program, Joint Annual Meeting, 1946 754
Some Developments in Aerial Photography during the War. Geological Note by L. E. Nugent, Jr. 725
Sonora, Northwest, Mexico, Stratigraphy Near Caborca. Geological Note by G. Arthur Cooper and Alberto R. V. Arellano 606
South America, Northwestern, Tectonic Framework of. By Fritz E. von Estorff. Discussion by Victor Oppenheim 1589
———, Northwestern, Tectonic Framework of. By Fritz E. von Estorff 581
South American Petroleum Congress, First. At Home and Abroad 1219
South Arkansas and North Louisiana, Developments in 1945. By William S. Hoffmeister and Van Daniel Robinson 1007
South Texas, Development in 1945. By Bruce Scrafford 972
Southeastern New Mexico, Stratigraphy and Oil Producing Zones of Pre- San Andres Formations of. By Robert E. King. Review by E. Russell Lloyd 278
Southeastern Peru, Geological Reconnaissance in. By Victor Oppenheim 254
Southeastern States, Developments in 1945. By C. W. Alexander 1020
Specific Geological Material:—State and Province in Area 1337
Spectrochemical Sample Logging of Limestones. By L. L. Sloss and S. R. B. Cooke. Abstract 749, 1888
Spivey, R. C., and Roberts, T. G. Lower Pennsylvanian Terminology in Central Texas . . 181
Stanfield, K. E., and Taliaferro, D. B. Asphaltic Sands Found to Occur in Oil Fields. Geological Note. 616
Statistics of Exploratory Drilling, 1945. By Frederic H. Lahee. Abstract 749
Statistics of Exploratory Drilling in 1945. By Frederic H. Lahee 813
Statistics of Exploratory Drilling. Discussion by W. J. Dixon and R. M. Swesnik. . . . 2035
Status of German Oil Fields. By Frank Reeves 1546
Status of Micropaleontology in the East Gulf Region. By Henry V. Howe. Abstract . . . 1965
Steig, M. H. Memorial of William Palen Conway, Jr. 463
Stephenson, Lloyd W. Alunite at Woodbine-Eagle Ford Contact in Northeastern Texas. Geological Note 1764
———. Rowell Well No. 1, Heidelberg Field, Mississippi. Discussion 275
Stille, Hans. Geotectonic Subdivisions of Earth History. Review by W. A. Ver Wiebe . . 1200
———. Tectonic Development of the Americas to Form the East Rim of the Pacific. Review by W. A. Ver Wiebe 1054
Stirton, R. A. First Oligocene Mammalian Fauna from Northern South America. Abstract. The Association Round Table 131
Stock, Chester. Memorial of Bruce Lawrence Clark 1065
Stone, Robert W. Review of Marine Microbiology, by Claude E. Zobell 1308
Storey, J. B., and Shroeder, F. R. Abstract 1967
Stow, Marcellus H. Abstract 751
Straley, H. W., III, and Dickerson, Roy E. Suggestions for Naming Multiple Sands. Geological Note 115
Stratigraphic and Structural Features of the Ivanpah Quadrangle, Southeastern California. By D. F. Hewett. Abstract 2091
Stratigraphic Section East of Bogota, Colombia. By Thomas Clements. Abstract. The Association Round Table 130
Stratigraphic Sequences, "Jacob Staff" and Measurements of. Geological Note by J. A. Broggi 716, 1934
Stratigraphy and Petroleum Geology of Black Warrior Basin, Mississippi and Alabama. By F. F. Mellen. Abstract 1963
——— of the Golden-Morrison Area, Jefferson County, Colorado. By L. W. LeRoy . 1055
———, Late Paleozoic and Early Mesozoic, of Unita Mountains, Utah. By Horace D. Thomas and Max L. Krueger 1255
——— near Caborca, Northwest Sonora, Mexico. Geological Note by G. Arthur Cooper and Alberto R. V. Arellano 606
——— of the Pennsylvanian, in the West Half of Colorado and in Adjacent Parts of New Mexico. By Lloyd G. Henbest. Abstract 750
——— of Upper Nehalem River Basin, Northwestern Oregon. By W. C. Warren and Hans Norbisrath 213

——— of Waller and Harris Counties, Texas. By R. L. Beckelhymer 52
———, Pre-Selma Upper Cretaceous, of Western Alabama. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle 187
Stratigraphy and Oil Producing Zones of Pre-San Andres Formations of Southeastern New Mexico. By Robert E. King. Review by E. Russell Lloyd 278
Student Awards, Houston Geological Society. The Association Round Table 1210
Student Merit Awards, Houston Geological Society. At Home and Abroad 1069
Studies on Redox Potential of Marine Sediments. By Claude E. ZoBell 477
Subdivisions, Geotectonic, of Earth History. By Hans Stille. Review by W. A. Ver Wiebe . . 1200
Submarine Sedimentary Features on the Bahama Banks and Their Bearing on Distribution Patterns of Lenticular Oil Sands. By John L. Rich. Abstract. 743
Submarine Slumping and Location of Oil Bodies. By Rhodes W. Fairbridge 84
Subsurface Correlations of East Texas, North Louisiana, South Arkansas, and Mississippi. By Roy T. Hazzard. Abstract 1966
Subsurface Formation, New Mississippian, in Southeast Nebraska, Boice Shale. Geological Note by E. C. Reed 348
Subsurface Occurrence of Cretaceous Sediments of Mississippi. By C. W. Alexander and R. M. Harris. Abstract 1964
Subsurface Paleozoic Stratigraphy of Southeastern Colorado. By John C. Maher. Abstract . 752
Suggestions for Naming Multiple Sands. Geological Note by Roy E. Dickerson and H. W. Staley, III 115
Surface Occurrence of Cretaceous Beds in the Southeastern States. By Watson H. Monroe Abstract 1963
Survey of College Students Majoring in Geology. Research Note by A. I. Levorsen . . . 730
——— of Weathering Processes and Products. By Parry Reiche. Review by Ronald DeFord 280
Suter, H. H. Relations between Kinds of Well Data and Apparent Faulting. Geological Note . 1910
Sutton, F. A. Abstract 744
———. Geology of Maracaibo Basin, Venezuela 1621
Swesnik, R. M., and Dixon, W. J. Statistics of Exploratory Drilling. Discussion 2035
Synthetic Oil and Gasoline Industry of Germany. By W. C. Schroeder. Abstract 741

Tait, Samuel W., Jr. The Wildcatters. Review by Edward A. Koester 1308
Taitt, A. H., and Lees, G. M. Geological Results of Search for Oilfields in Great Britain. Review by D. A. Greig 1591
Taliaferro, D. B., and Stanfield, K. E. Asphaltic Sands Found to Occur in Oil Fields. Geological Note 616
Taliaferro, N. L., and Barbat, W. F. Notes on Geology of Deep Coles Levee Well, Kern County, California. Abstract. The Association Round Table 132
Tasman, Cevat E. Harbolite: A Carbonaceous Hydrocarbon. Geological Note 1051
Tator, Benjamin A. Memorial of Robert Hendee Smith 1214
Taylor, Hall. Siluro-Devonian Strata in Central Kansas 1221
Tectonic Development of the Americas to Form the East Rim of the Pacific. By Hans Stille. Review by W. A. Ver Wiebe 1054
Tectonic Features of the Greater Antilles. By Howard A. Meyerhoff. Abstract 744
——— of Western Canada. By Theodore A. Link. Abstract 747
Tectonic Framework of Northwestern South America. By Fritz E. von Estorff 581
———. Discussion by Victor Oppenheim 1589
———. Discussion by Fritz E. von Estorff 2040
Tectonic Maps and Tectonic Provinces of United States. By Chester R. Longwell. Abstract . 742
Tectonics, Report of Sub-Committee on. By Philip B. King 2042
Tectonics and Oil-Field Papers. Abstracts 745
Tennessee, Northeast, and Southwest Virginia, Lower Middle Ordovician of. By Chilton E. Prouty 1140
Terminology, Lower Pennsylvanian, in Central Texas. By R. C. Spivey and T. G. Roberts . 181
Terrestrial Dynamics. By Bailey Willis. Abstract. The Association Round Table. . . . 133
Texas, Central, Lower Pennsylvanian Terminology in. By R. C. Spivey and T. G. Roberts . 181
———, Devonian (?) Producing Zone, TXL Pool, Ector County. Geological Note by Max David 118
———, Geology of Katy Field, Waller, Harris, and Fort Bend Counties. By A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
———, Hawkins Field, Wood County. By E. A. Wendlandt, T. H. Shelby, Jr., and John S. Bell 1830

———, History of Reserves and Production of Natural Gas and Natural Gas Liquids in. By Perry Olcott 1123
———, North and West-Central, Developments in 1945. By North Texas Geological Society 963
———, Northeastern, Alunite at Woodbine-Eagle Ford Contact in. Geological Note by L. W. Stephenson 1764
———, Raccoon Bend Salt Dome, Austin County. Geological Note by H. J. McLellan . . 1306
———, South, Development in 1945. By Bruce Scrafford 972
———, Stratigraphy of Waller and Harris Counties. By R. L. Beckelhymer 52
———, Upper Gulf Coast of, Developments in 1945. By Donald M. Davis and Carl F. Beilharz 991
———, West, and Southeast New Mexico, Correlation of Permian of. By John W. Skinner . 1857
Texas and New Mexico, Algae Reefs in Cap Rock of Ogallala Formation on Llano Estacado Plateau. By W. Armstrong Price, Maxim K. Elias, and John C. Frye 1742
Texas Panhandle, Developments in 1945. By Porter A. Montgomery, Jr., and Le Roy Fugitt 925
Thalmann, Hans E. Micropaleontology of Upper Cretaceous and Paleocene in Western Ecuador 337
The Association Round Table . . 126, 287, 357, 629, 733, 1057, 1206, 1312, 1597, 1779, 1960, 2071
Thirty-First Annual Business Meeting, Minutes. By Edward A. Koester. The Association Round Table 755
Thirty-First Annual Meeting, Chicago, April 1–4, 1946. The Association Round Table . . 738
Thom, W. T., Jr. Abstract 742
Thomas, C. R., Huddle, John W., and Bass, N. W. Abstract 749
Thomas, G. D. Memorial of William Francis Chisholm 1213
Thomas, Horace D., and Krueger, Max L. Late Paleozoic and Early Mesozoic Strata of the Uinta Mountains, Utah. Abstract.The Association Round Table 131
———. Late Paleozoic and Early Mesozoic Stratigraphy of Uinta Mountains, Utah . . 1255
Tidal Waves from the Recent Aleutian Earthquake. By Francis P. Shepard. Abstract . . 2088
Time of Oil and Gas Accumulation. By A. I. Levorsen. Abstract 2089
Tinsley Field. By F. R. Shroeder and J. B. Storey. Abstract 1967
Titles of Papers on S.E.P.M. Program, 1946. Joint Annual Meeting 752
——— of Papers on S.E.G. Program. Joint Annual Meeting, 1946 754
Tomlinson, C. W., chairman. Report of Representatives on Commission on Classification and Nomenclature of Rock Units. The Association Round Table 777
Totten, R. B., and Lloyd, A. M. Abstract 1967
Transformation of Organic Material into Petroleum. By G. M. Knebel. Abstract . . . 748
——— of Organic Material into Petroleum under Geological Conditions (The Geological Fence). By Ben B. Cox 645
Trends and Developments in Petroleum Production Engineering. By Stuart E. Buckley. Abstract 748
——— since 1941. Abstracts 747
——— in Petroleum Production Engineering. Stuart E. Buckley 1131
Triassic of Sinai (Egypt), Conodonts from. Geological Note by D. B. Eicher 613
Trytten, M. E. Deferment of Scientific and Technical Personnel. Office of Scientific Personnel Bulletin 26. The Association Round Table 141
Tulsa Geological Society Research Committee. Abstract 747
Twenhofel, W. H. Distinguished Lecture Tour. At Home and Abroad 807
TXL Pool, Ector County, Texas, Devonian (?) Producing Zone. Geological Note by Max David 118

Uinta Mountains, Utah, Late Paleozoic and Early Mesozoic Stratigraphy of. By Horace D. Thomas and Max L. Krueger 1255
Umbgrove, J. H. F. Evolution of Reef Corals in East Indies since Miocene Time . . . 23
———. Origin of Continental Shelves 249
———. The Pulse of the Earth. Review by W. A. Ver Wiebe 278
United Kingdom, Geological Occurrence of Oil in, with References to Present Exploratory Operations. By H. R. Lovely 1444, 1959
United States Geological Survey, Recent Investigations by, of Petroleum Possibilities in Alaska. By John C. Reed 1433
Upper Cretaceous Stratigraphy, Pre-Selma, of Western Alabama. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle 187
Upper Cretaceous and Paleocene in Western Ecuador, Micropaleontology of. By Hans E. Thalmann 337
Upper Nehalem River Basin, Northwestern Oregon, Stratigraphy of. By W. C. Warren and Hans Norbisrath 213

Uren, Lester Charles. Petroleum Production Engineering—Oil Field Development. Review by Harry H. Power 2064
Use of Geology in Southwest Pacific Area. By William C. Putnam. Abstract 741
Use of Quotation Mark in Science. Geological Note by J. E. Eaton 1928
Utah, Late Paleozoic and Early Mesozoic Stratigraphy of Uinta Mountains. By Horace D. Thomas and Max L. Krueger 1255

aluable Geologic Tool—Grain Roundness. By Gordon Rittenhouse 1192
Van Gundy, C. E. Faulting in East Part of Grand Canyon of Arizona 1899
Van Tuyl, F. M., Levings, W. S., and Others. Review of Petroleum Geology in 1945. Review by Robert F. Walters 1955
Venezuela, Geology of Maracaibo Basin. By F. A. Sutton 1621
Ver Wiebe, W. A. Kinderhook Dolomite of Sedgwick County, Kansas 1747
——. Review of Geotectonic Subdivisions of Earth History, by Hans Stille 1200
———. Review of Tectonic Development of the Americas to Form the East Rim of the Pacific, by Hans Stille 1054
———. Review of The Pulse of the Earth, by J. H. F. Umbgrove 278
———. Review of Oil and Gas Field Development in United States, 1944, by National Oil Scouts and Landmen's Association 353
Veterans Retraining Program in Geology. By W. H. Bradley. The Association Round Table 290
Vick Formation of Pre-Tuscaloosa Age of Alabama Coastal Plain. Geological Note by Louis C. Conant 711
Virginia, Southwest, and Northeast Tennessee, Lower Middle Ordovician of. By Chilton E. Prouty 1140
von Estorff, Fritz E. Tectonic Framework of Northwestern South America 581, 2040
———. Discussion by Victor Oppenheim 1589

Wagner, C. M. Memorial of Frank Marion Anderson 636
Waldschmidt, W. A. Gramp's Field, Archuleta County, Colorado 561
Waldschmidt, W. A., and DeFord, Ronald K. Oölite and Oölith. Geological Note . . . 1587
Waller and Harris Counties, Texas, Stratigraphy of. By R. L. Beckelhymer 52
Waller, Harris, and Fort Bend Counties, Texas, Geology of Katy Field. By A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self, and C. A. Warner 157
Walters, Ray P. Oil Fields of Carpathian Region 319
Walters, Robert F. Buried Pre-Cambrian Hills in Northeastern Barton County, Central Kansas 660
———. Review of Review of Petroleum Geology in 1945, by F. M. Van Tuyl, W. S. Levings, and Others 1950
Walton, Paul T. Ellis, Amsden, and Big Snowy Group, Judith Basin, Montana 1294
War, Some Developments in Aerial Photography during. Geological Note by L. E. Nugent, Jr. 725
Warner, C. A., Allison, A. P., Beckelhymer, R. L., Benson, Don G., Hutchins, R. M., Jr., Lake, C. L., O'Bannon, P. H., Lewis, Ray C., and Self, S. R. Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas 157
Warren, W. C., and Norbisrath, Hans. Stratigraphy of Upper Nehalem River Basin, Northwestern Oregon 213
Weathering Processes and Products, Survey of. By Parry Reiche. Review by Donald K. DeFord 280
Weaver, Paul. Abstract 1965
Well Logs of Colorado, Selected. By Clark F. Barb. Review 282
Wendlandt, E. A., Shelby, T. H., and Bell, John. Abstract 746
———. Hawkins Field, Wood County, Texas 1830
Well Data, Relations between Kinds of, and Apparent Faulting. Geological Note by H. H. Suter 1910
West Border of San Joaquin Valley, California, Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District. By S. N. Daviess 63
West-Central and North Texas, Developments in 1945. By North Texas Geological Society . 963
West Edmond Oil Field, Central Oklahoma. By D. A. McGee and H. D. Jenkins . . . 1797
West Edmond Oil Field, Oklahoma. By D. A. McGee. Abstract 746
West Texas Geological Society Field Trip, November 2 and 3, 1946. The Association Round Table 1785
West Texas and Southeast New Mexico, Correlation of Permian of. By John W. Skinner . . 1857
West Texas and Southeastern New Mexico, Developments in 1945. By E. Hazen Woods, C. L. Chase, and J. E. Bucher 930

West Virginia Geological Survey Collection of Drill Cuttings. Geological Note by James H. C. Martens 350
Western Alabama, Pre-Selma Upper Cretaceous Stratigraphy of. By Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle 187
Western Ecuador, Micropaleontology of Upper Cretaceous and Paleocene in. By Hans E. Thalmann 337
Wharton, Jay B., and Bates, Fred W. Abstract 1966
Wharton, Jay B., Jr., and Bates, Fred W. Developments in Gulf Coast of Louisiana in 1945 . 999
Wheeler, Robert R. Elmore Embayment, Garvin County, Oklahoma. Geological Note . . 2034
Whitehead, W. L., and Sheppard, C. W., Formation of Hydrocarbons from Fatty Acids by Alpha-Particle Bombardment 32
Wildcatters, The. By Samuel W. Tait, Jr. Review by Edward A. Koester 1308
Williams, Howell, Graton, L. C., and Dorf, Erling. Paracutin Volcano, Mexico. Review by John L. Ferguson 121
Willis, Bailey. Normal Fault Structures and Others 1875
———. Terrestrial Dynamics. Abstract. The Association Round Table 133
Wilson, John H. Memorial of John Muro Golden 1970
Wood County, Texas, Hawkins Field. By E. A. Wendlandt, T. H. Shelby, Jr., and John S. Bell 1830
Woodbine-Eagle Ford Contact in Northeastern Texas, Alunite at. Geological Note by L. W. Stephenson 1764
Woodford, A. O., Moran, T. G., and Shelton, J. S. Miocene Conglomerates of Puente and San Jose Hills, California 514
Woods, E. Hazen, Chase, C. L., and Bucher, J. E. Developments in West Texas and Southeastern New Mexico in 1945 930
Woolnough, W. G. Distribution of Oceans and Continents 1981

Zebal, George. Abstract 1967
ZoBell, Claude E. Marine Microbiology. Review by Robert W. Stone 1308
———. Studies on Redox Potential of Marine Sediments 477
Zuloaga, G. Preparation of Lantern Slides. Geological Note 1771

AVAILABLE PUBLICATIONS OF

The American Association of Petroleum Geologists

Box 979, Tulsa 1, Oklahoma

1931 **Geologic Map of Cuba.** Compiled by J. Whitney Lewis. Folded paper sheet, 24 x 10 inches. Scale, 3/16 inch = 10 miles. Geologic column on same sheet. From Lewis' "Geology of Cuba," in June, 1932, *Bulletin* ..... $ .25

1936 **Geology of the Tampico Region, Mexico,** By John M. Muir. 280 pp., 15 half-tone plates, 41 line drawings, 9 tables. 6 x 9 inches. Cloth. **To members and associates, $3.50** 4.50

1936 **Areal and Tectonic Map of Southern California.** By R. D. Reed and J. S. Hollister. In 10 colors. From "Structural Evolution of Southern California," December, 1936, *Bulletin.* Scale, ⅛ inch = 1 mile. Map and 4 structure sections on strong ledger paper, 27 x 31 inches, rolled in tube .50

1938 **Miocene Stratigraphy of California.** By Robert M. Kleinpell. 450 pp.; 14 line drawings, including a large correlation chart; 22 full-tone plates of foraminifera; 18 tables (check lists and a range chart of 15 pages). 6 x 9 inches. Cloth. **To members and associates, $4.50** 5.00

1941 **Stratigraphic Type Oil Fields.** Symposium of 37 papers by 52 authors. 902 pp., 300 illus., 227 references in annotated bibliography. 6 x 9 inches. Cloth. **To members and associates, $4.50** 5.50

1944 **Tectonic Map of the United States.** Prepared under the direction of the Committee on Tectonics, Division of Geology and Geography, National Research Council. Scale, 1 inch = 40 miles. Printed in 7 colors on 2 sheets, each 40 x 50 inches. Folded, $1.75. Rolled in tube 2.00

1947 **Possible Future Oil Provinces of the United States and Canada. Third printing.** From August, 1941, *Bulletin.* 154 pp., 83 figs. 6 x 9 inches. Paper. **To members and associates, $1.00** 1.50

Bulletin of The American Association of Petroleum Geologists. Official monthly publication. Each number, approximately 150 pages of articles, maps, discussions, reviews. Annual subscription, $15.00 (outside United States, $15.40). Descriptive price list of back numbers on request.

(Prices, postpaid. Write for discount to colleges and public libraries.)

BULLETIN

of the

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

GAYLE SCOTT, *Editor*

TEXAS CHRISTIAN UNIVERSITY, FORT WORTH 9, TEXAS

ASSOCIATE EDITORS

GENERAL	K. C. HEALD, Gulf Oil Corporation, Box 1166, Pittsburgh 30, Pa.
	HUGH D. MISER, U. S. Geological Survey, Washington 25, D. C.
	THERON WASSON, Pure Oil Company, 35 E. Wacker Drive, Chicago 1, Ill.
APPALACHIANS	RICHARD E. SHERRILL, University of Pittsburgh, Pittsburgh 13, Pa.
NORTH CENTRAL STATES	R. B. NEWCOMBE, Superior Oil Company, Grand Rapids, Mich.
KANSAS	EDWARD A. KOESTER, Darby and Bothwell, Inc., Wichita 2, Kan.
OKLAHOMA	
Western	ROBERT H. DOTT, Oklahoma Geological Survey, Norman, Okla.
Eastern	SHERWOOD BUCKSTAFF, Shell Oil Company, Inc., Box 1191, Tulsa 2, Okla.
TEXAS	
North and Central	J. B. LOVEJOY, Gulf Oil Corporation, Fort Worth 1, Tex.
Northeastern	C. I. ALEXANDER, Magnolia Petroleum Company, Tyler, Tex.
San Antonio	JOHN R. SANDIDGE, Magnolia Petroleum Company, San Antonio 5, Tex.
Permian Basin	E. RUSSELL LLOYD, Box 1026, Midland, Tex.
GULF COAST	SIDNEY A. JUDSON, Texas Gulf Producing Company, Houston 1, Tex.
	MARCUS A. HANNA, Gulf Oil Corporation, Houston 1, Tex.
EASTERN GULF	HENRY N. TOLER, Southern Natural Gas Company, Jackson, Miss.
ARKANSAS AND NORTH LOUISIANA	ROY T. HAZZARD, Gulf Refining Company of Louisiana, Shreveport 93, La.
ROCKY MOUNTAINS	A. E. BRAINERD, Continental Oil Company, Denver 2, Colo.
CALIFORNIA	W. D. KLEINPELL, Box 1131, Bakersfield, Calif.
	E. R. ATWILL, Union Oil Company of California, 617 W. 7th, Los Angeles 14
CANADA	THEODORE A. LINK, Imperial Oil, Ltd., Toronto, Ontario
SOUTH AMERICA	HOLLIS D. HEDBERG, Mene Grande Oil Co., Apt. 709, Caracas, Venezuela

VOLUME 30

JANUARY—DECEMBER 1946

PART I

PAGES 1-1076

ASSOCIATION HEADQUARTERS, BOX 979, TULSA 1, OKLAHOMA

THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS, INC.

OFFICERS FOR THE YEAR ENDING MARCH, 1947

EARL B. NOBLE, *President*
Los Angeles, Calif.

D. PERRY OLCOTT, *Vice-President*
Houston, Texas

EDWARD A. KOESTER, *Secretary-Treasurer*
Wichita, Kansas

GAYLE SCOTT, *Editor*
Fort Worth, Texas

(The foregoing officers, together with the *Past-President*, MONROE G. CHENEY, Coleman, Texas, constitute the Executive Committee)

DISTRICT REPRESENTATIVES

(Representatives' terms expire immediately after annual meetings of the years shown in parentheses)

Amarillo
Elisha A. Paschal (1948), Amarillo, Tex.
Appalachians
W. O. Ziebold (1947), Charleston, W. Va.
Canada
Edwin H. Hunt (1947), Calgary, Alberta
Capital
Carle H. Dane (1948), Washington, D. C.
Corpus Christi
Ira H. Stein (1947), Alice, Tex.
Dallas
W. Dow Hamm (1948), Dallas, Tex.
East Oklahoma
J. L. Borden (1947), Tulsa
Glenn D. Hawkins (1947), Tulsa
Frank R. Clark (1948), Tulsa
Robert L. Kidd (1948), Bartlesville
Fort Worth
Lynn K. Lee (1947), Fort Worth, Tex.
Great Lakes
Robert M. English (1947), Mattoon, Ill.
Stanley G. Elder (1948), Evansville, Ind.
Houston
A. P. Allison (1947), Houston, Tex.
P. B. Leavenworth (1947), Houston, Tex.
Ira H. Brinkerhoff (1948), Houston, Tex.
Shirley L. Mason (1948), Houston, Tex.
P. H. O'Bannon (1948), Houston, Tex.
Michigan
E. J. Baltrusaitis (1947), Saginaw
New Mexico
Georges Vorbe (1947), Socorro
New York
Gail F. Moulton (1947), New York City
Pacific Coast
Rollin Eckis (1947), Bakersfield, Calif.
Glenn C. Ferguson (1947), Bakersfield, Calif.
Frank W. Bell (1948), Sacramento, Calif.
Claude E. Leach (1948), Ventura, Calif.
D. E. Taylor (1948), Long Beach, Calif.
Rocky Mountains
Robert L. Sielaff (1947), Casper, Wyo.
H. E. Christensen (1948), Denver, Colo.
Shreveport
G. D. Thomas (1947), Shreveport, La.
South America
L. W. Henry (1947), Caracas, Venezuela
Southeast Gulf
Henry N. Toler (1947), Jackson, Miss.
Southern Louisiana
Max Bornhauser (1947), Lafayette
So. Permian Basin
George R. Gibson (1947), Midland, Tex.
Warren D. Anderson (1948), Midland, Tex.
South Texas
Adolph Dovre (1947), San Antonio
Wesley G. Gish (1948), San Antonio
Tyler
J. S. Hudnall (1947), Tyler, Tex.
West Oklahoma
Jerry B. Newby (1947), Oklahoma City
C. W. Tomlinson (1948), Ardmore
Wichita
John W. Inkster (1947), Wichita, Kan.
Wichita Falls
J. J. Russell, Jr. (1948)

DIVISION REPRESENTATIVES

Paleontology and Mineralogy

F. W. Rolshausen (1947), Houston, Tex.

Henryk B. Stenzel (1947), Austin, Tex.

OFFICERS FOR THE YEAR ENDING APRIL, 1946

President: MONROE G. CHENEY

Vice-President: M. GORDON GULLEY

Secretary-Treasurer: EDWARD A. KOESTER

Editor: GAYLE SCOTT

(The foregoing officers, together with the *Past-President*, IRA H. CRAM, constitute the Executive Committee)

COPYRIGHT 1946 BY
THE AMERICAN ASSOCIATION OF
PETROLEUM GEOLOGISTS

PUBLISHED
MONTHLY

Composed and Printed by
George Banta Publishing Company
Menasha, Wisconsin, U.S.A.

CONTENTS OF VOLUME 30 (1946), PART I

NUMBER 1 (JANUARY)

Oil Basins of East Indian Archipelago, *H. M. Schuppli* 1
Evolution of Reef Corals in East Indies since Miocene Time, *J. H. F. Umbgrove* 23
Formation of Hydrocarbons from Fatty Acids by Alpha-Particle Bombardment, *C. W. Sheppard and W. L. Whitehead* 32
Stratigraphy of Waller and Harris Counties, Texas, *R. L. Beckelhymer* 52
Mineralogy of Late Upper Cretaceous, Paleocene, and Eocene Sandstones of Los Banos District, West Border of San Joaquin Valley, California, *S. N. Daviess* 63
Submarine Slumping and Location of Oil Bodies, *Rhodes W. Fairbridge* 84
Conodonts as Paleozoic Guide Fossils, *Samuel P. Ellison, Jr.* 93
GEOLOGICAL NOTES
Outline for Classification of Oil Possibilities, *Frank Reeves* 111
Suggestion for Naming Multiple Sands, *Roy E. Dickerson and H. W. Straley, III* . . 115
Devonian(?) Producing Zone, TXL Pool, Ector County, Texas, *Max David* 118
Natural Resources Section in Japan and Korea, *Thomas A. Hendricks* 119
REVIEWS AND NEW PUBLICATIONS 120
THE ASSOCIATION ROUND TABLE 126
AT HOME AND ABROAD 147

NUMBER 2 (FEBRUARY)

Geology of Katy Field, Waller, Harris, and Fort Bend Counties, Texas, *A. P. Allison, R. L. Beckelhymer, Don G. Benson, R. M. Hutchins, Jr., C. L. Lake, Ray C. Lewis, P. H. O'Bannon, S. R. Self and C. A. Warner* 157
Lower Pennsylvanian Terminology in Central Texas, *R. C. Spivey and T. G. Roberts* . . . 181
Pre-Selma Upper Cretaceous Stratigraphy of Western Alabama, *Watson H. Monroe, Louis C. Conant, and D. Hoye Eargle* 187
Stratigraphy of Upper Nehalem River Basin, Northwestern Oregon, *W. C. Warren and Hans Norbisrath* 213
Fossil Plants and Jurassic-Cretaceous Boundary in Montana and Alberta, *Roland W. Brown* 238
Origin of Continental Shelves, *J. H. F. Umbgrove* 249
Geological Reconnaissance in Southeastern Peru, *Victor Oppenheim* 254
RESEARCH NOTES
Interim Report of Research Committee, *S. W. Lowman* 265
DISCUSSION 275
REVIEWS AND NEW PUBLICATIONS 278
THE ASSOCIATION ROUND TABLE 287
MEMORIAL
Alexander Watts McCoy, *The Executive Committee* 292
AT HOME AND ABROAD 297

NUMBER 3 (MARCH)

Porosity through Dolomitization, *Kenneth K. Landes* 305
Oil Fields of Carpathian Region, *Ray P. Walters* 319
Micropaleontology of Upper Cretaceous and Paleocene in Western Ecuador, *Hans E. Thalmann* 337
GEOLOGICAL NOTES
Boice Shale, New Mississippian Subsurface Formation in Southeast Nebraska, *E. C. Reed* 348
West Virginia Geological Survey Collection of Drill Cuttings, *James H. Martens* . . . 350
REVIEWS AND NEW PUBLICATIONS 353
THE ASSOCIATION ROUND TABLE
Association Membership List, March 2, 1946 361
Financial Statement for 1945 455
MEMORIAL
William Palen Conway, Jr., *M. H. Steig* 463
Roy Jay Holden, *Heath M. Robinson* 464
Donald Egbert Fuellhart, *Dugald Gordon* 468
AT HOME AND ABROAD 470

NUMBER 4 (APRIL)

Studies on Redox Potential of Marine Sediments, *Claude E. ZoBell* 477
Miocene Conglomerates of Puente and San Jose Hills, California, *A. O. Woodford, T. G. Moran, and J. S. Shelton* 514
Gramp's Field, Archuleta County, Colorado, *W. A. Waldschmidt* 561
Tectonic Framework of Northwestern South America, *Fritz E. von Estorff* 581
San Pedro Oil Field, Province of Salta, Northern Argentina, *Lyman C. Reed* 591

GEOLOGICAL NOTES
Stratigraphy near Caborca, Northwest Sonora, Mexico, *G. Arthur Cooper and Alberto R. V. Arellano* . . . 606
Age of Penters Chert, Batesville District, Arkansas, *Douglas M. Kinney* . . . 611
Conodonts from Triassic of Sinai (Egypt), *D. B. Eicher* . . . 613
Asphaltic Sands Found to Occur in Oil Fields, *D. B. Taliaferro and K. E. Stanfield* . . . 616
DISCUSSION
Photography of Megafossils, *Floyd K. Beach* . . . 620
REVIEWS AND NEW PUBLICATIONS . . . 625
THE ASSOCIATION ROUND TABLE . . . 629
MEMORIAL
Albert Foster Crider, *C. L. Moody* . . . 633
Frank Marion Anderson, *C. M. Wagner* . . . 636
AT HOME AND ABROAD . . . 640

NUMBER 5 (MAY)

Transformation of Organic Material into Petroleum under Geological Conditions (The Geological Fence), *Ben B. Cox* . . . 645
Buried Pre-Cambrian Hills in Northeastern Barton County, Central Kansas, *Robert F. Walters* 660
GEOLOGICAL NOTES
Vick Formation of Pre-Tuscaloosa Age of Alabama Coastal Plain, *Louis C. Conant* . . . 711
"Jacob Staff" and Measurements of Stratigraphic Sequences, *J. A. Broggi* . . . 716
Some Developments in Aerial Photography during the War, *L. E. Nugent, Jr.* . . . 725
RESEARCH NOTES
Survey of College Students Majoring in Geology, *A. I. Levorsen* . . . 730
REVIEWS AND NEW PUBLICATIONS . . . 731
THE ASSOCIATION ROUND TABLE
Minutes, Thirty-First Annual Meeting, *Edward A. Koester* . . . 755
MEMORIAL
The Geologist in World War II—A Memorial, *A. Rodger Denison* . . . 802
Robert W. Burger, *Rollin Eckis* . . . 803
Kenneth Mason Bravinder, *Gilbert T. Bowen* . . . 805
AT HOME AND ABROAD . . . 807

NUMBER 6 (JUNE)

REVIEW OF EXPLORATION AND DEVELOPMENT IN 1945
Statistics of Exploratory Drilling in 1945, *Frederic H. Lahee* . . . 813
California, *Graham B. Moody* . . . 829
Canada, *George S. Hume* . . . 851
Appalachians, *Appalachian Geological Society* . . . 861
Eastern Interior, *Alfred H. Bell* . . . 879
Michigan, *H. J. Hardenberg* . . . 886
North Mid-Continent, *Virgil B. Cole and Edward A. Koester* . . . 895
Oklahoma, *Joseph L. Borden* . . . 902
Rocky Mountains, *E. W. Krampert* . . . 912
Texas Panhandle, *Porter A. Montgomery, Jr. and Le Roy Fugitt* . . . 925
West Texas and Southeastern New Mexico, *E. Hazen Woods, C. L. Chase, and J. E. Bucher* . 930
Arizona, Western and Northern New Mexico, *Robert L. Bates* . . . 958
North and West-Central Texas, *North Texas Geological Society* . . . 963
South Texas, *Bruce Scrafford* . . . 972
East Texas, *T. H. Shelby, Jr., and G. J. Loetterle* . . . 980
Upper Gulf Coast of Texas, *Donald M. Davis and Carl F. Beilharz* . . . 991
Louisiana Gulf Coast, *Fred W. Bates and Jay B. Wharton, Jr.* . . . 999
South Arkansas and North Louisiana, *William S. Hoffmeister and Van Daniel Robinson* . . 1007
Southeastern States, *C. W. Alexander* . . . 1020
GEOLOGICAL NOTES
Harbolite: A Carbonaceous Hydrocarbon, *Cevat E. Tasman* . . . 1051
DISCUSSION
Geological Reconnaissance in Southeastern Perú, *H. E. Parsons* . . . 1053
REVIEWS AND NEW PUBLICATIONS . . . 1054
THE ASSOCIATION ROUND TABLE . . . 1057
MEMORIAL
Bruce Lawrence Clark, *Chester Stock* . . . 1065
Dana Hogan, *J. R. Pemberton* . . . 1066
AT HOME AND ABROAD . . . 1068

ERRATA

PAGE 717. Figure 2 should not have been used. The correct Figure 2 is printed on page 1934.

BULLETIN
of the
AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

GAYLE SCOTT, *Editor*
TEXAS CHRISTIAN UNIVERSITY, FORT WORTH 9, TEXAS

ASSOCIATE EDITORS

GENERAL	K. C. HEALD, Gulf Oil Corporation, Box 1166, Pittsburgh 30, Pa.
	HUGH D. MISER, U. S. Geological Survey, Washington 25, D. C.
	THERON WASSON, Pure Oil Company, 35 E. Wacker Drive, Chicago 1, Ill.
APPALACHIANS	RICHARD E. SHERRILL, University of Pittsburgh, Pittsburgh 13, Pa.
NORTH CENTRAL STATES	R. B. NEWCOMBE, Superior Oil Company, Grand Rapids, Mich.
KANSAS	EDWARD A. KOESTER, Darby and Bothwell, Inc., Wichita 2, Kan.
OKLAHOMA	
Western	ROBERT H. DOTT, Oklahoma Geological Survey, Norman, Okla.
Eastern	SHERWOOD BUCKSTAFF, Shell Oil Company, Inc., Box 1191, Tulsa 2, Okla.
TEXAS	
North and Central	J. B. LOVEJOY, Gulf Oil Corporation, Fort Worth 1, Tex.
Northeastern	C. I. ALEXANDER, Magnolia Petroleum Company, Tyler, Tex.
San Antonio	JOHN R. SANDIDGE, Magnolia Petroleum Company, San Antonio 5, Tex.
Permian Basin	E. RUSSELL LLOYD, Box 1026, Midland, Tex.
GULF COAST	SIDNEY A. JUDSON, Texas Gulf Producing Company, Houston 1, Tex.
	MARCUS A. HANNA, Gulf Oil Corporation, Houston 1. Tex.
EASTERN GULF	HENRY N. TOLER, Southern Natural Gas Company, Jackson, Miss.
ARKANSAS AND NORTH LOUISIANA	ROY T. HAZZARD, Gulf Refining Company of Louisiana, Shreveport 93, La.
ROCKY MOUNTAINS	A. E. BRAINERD, Continental Oil Company, Denver 2, Colo.
CALIFORNIA	W. D. KLEINPELL, Box 1131, Bakersfield, Calif.
	E. R. ATWILL, Union Oil Company of California, 617 W. 7th, Los Angeles 14
CANADA	THEODORE A. LINK, Imperial Oil, Ltd., Calgary, Alberta
SOUTH AMERICA	HOLLIS D. HEDBERG, Mene Grande Oil Co., Apt. 709, Caracas, Venezuela

VOLUME 30
JANUARY—DECEMBER 1946

PART II
PAGES 1077-2120

ASSOCIATION HEADQUARTERS, BOX 979, TULSA 1, OKLAHOMA

THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS, INC.

OFFICERS FOR THE YEAR ENDING MARCH, 1947

EARL B. NOBLE, *President*
Los Angeles, California

D. PERRY OLCOTT, *Vice-President*
Houston, Texas

EDWARD A. KOESTER, *Secretary-Treasurer*
Wichita, Kansas

GAYLE SCOTT, *Editor*
Fort Worth, Texas

(The foregoing officers, together with the *Past-President*, MONROE G. CHENEY, Coleman, Texas, constitute the Executive Committee)

DISTRICT REPRESENTATIVES

(Representatives' terms expire immediately after annual meetings of the years shown in parentheses)

Amarillo
Elisha A. Paschal (1948), Amarillo, Tex.
Appalachians
W. O. Ziebold (1947), Charleston, W. Va.
Canada
Edwin H. Hunt (1947), Calgary, Alberta
Capital
Carle H. Dane (1948), Washington, D. C.
Corpus Christi
Ira H. Stein (1947), Alice, Tex.
Dallas
W. Dow Hamm (1948), Dallas, Tex.
East Oklahoma
J. L. Borden (1947), Tulsa
Glenn D. Hawkins (1947), Tulsa
Frank R. Clark (1948), Tulsa
Robert L. Kidd (1948), Bartlesville
Fort Worth
Lynn K. Lee (1947), Fort Worth, Tex.
Great Lakes
Robert M. English (1947), Mattoon, Ill.
Stanley G. Elder (1948), Evansville, Ind.
Houston
A. P. Allison (1947), Houston, Tex.
P. B. Leavenworth (1947), Houston, Tex.
Ira H. Brinkerhoff (1948), Houston, Tex.
Shirley L. Mason (1948), Houston, Tex.
P. H. O'Bannon (1948), Houston, Tex.
Michigan
E. J. Baltrusaitis (1948), Saginaw
New Mexico
Georges Vorbe (1947), Socorro
New York
Gail F. Moulton (1947), New York City
Pacific Coast
Rollin Eckis (1947), Bakersfield, Calif.
Glenn C. Ferguson (1947), Bakersfield, Calif.
Frank W. Bell (1948), Sacramento, Calif.
Claude E. Leach (1948), Ventura, Calif.
D. E. Taylor (1948), Long Beach, Calif.
Rocky Mountains
Robert L. Sielaff (1947), Casper, Wyo.
H. E. Christensen (1948), Denver, Colo.
Shreveport
G. D. Thomas (1947), Shreveport, La.
South America
L. W. Henry (1947), Caracas, Venezuela
Southeast Gulf
Henry N. Toler (1947), Jackson, Miss.
Southern Louisiana
Max Bornhauser (1947), Lafayette
So. Permian Basin
George R. Gibson (1947), Midland, Tex.
Warren D. Anderson (1948), Midland, Tex.
South Texas
Adolph Dovre (1947), San Antonio
Wesley G. Gish (1948), San Antonio
Tyler
J. S. Hudnall (1947), Tyler, Tex.
West Oklahoma
Jerry B. Newby (1947), Oklahoma City
C. W. Tomlinson (1948), Ardmore
Wichita
John W. Inkster (1947), Wichita, Kan.
Wichita Falls
J. J. Russell, Jr. (1948), Wichita Falls, Tex.

DIVISION REPRESENTATIVES

Paleontology and Mineralogy

F. W. Rolshausen (1947), Houston, Tex.

Henryk B. Stenzel (1947), Austin, Tex.

OFFICERS FOR THE YEAR ENDING APRIL, 1946

President: MONROE G. CHENEY
Secretary-Treasurer: EDWARD A. KOESTER

Vice-President: M. GORDON GULLEY
Editor: GAYLE SCOTT

(The foregoing officers, together with the *Past-President*, IRA H. CRAM, constitute the Executive Committee)

COPYRIGHT 1946 BY
THE AMERICAN ASSOCIATION OF
PETROLEUM GEOLOGISTS

PUBLISHED
MONTHLY

Composed and Printed by
George Banta Publishing Company
Menasha, Wisconsin, U.S.A.

CONTENTS OF VOLUME 30 (1946), PART II

NUMBER 7 (JULY)

The Geological Attack, *M. G. Cheney* 1077
Expanding Activities of Paleontologists, *John R. Sandidge* 1088
Publication of Geophysical Case Histories, *Henry C. Cortes* 1095
Facing Forward, *Eugene Holman* 1099
Science Legislation and Geology, *Carey Croneis* 1104
Geologists' Place in Service, *Paul H. Price* 1115
History of Reserves and Production of Natural Gas and Natural Gas Liquids in Texas, *Perry Olcott* 1123
Trends and Developments in Petroleum Production Engineering, *Stuart E. Buckley* . . . 1131
Lower Middle Ordovician of Southwest Virginia and Northeast Tennessee, *Chilton E. Prouty* 1140
Grain Roundness—A Valuable Geologic Tool, *Gordon Rittenhouse* 1192
GEOLOGICAL NOTES
Half-Page Method of Manuscript Preparation, *W. Armstrong Price* 1198
REVIEWS AND NEW PUBLICATIONS 1200
THE ASSOCIATION ROUND TABLE 1206
MEMORIAL
William Francis Chisholm, *G. D. Thomas* 1213
Robert Hendee Smith, *Benjamin A. Tator* 1214
AT HOME AND ABROAD 1217

NUMBER 8 (AUGUST)

(PART I)
Siluro-Devonian Strata in Central Kansas, *Hall Taylor* 1221
Late Paleozoic and Early Mesozoic Stratigraphy of Uinta Mountains, Utah, *Horace D. Thomas and Max L. Krueger* 1255
Ellis, Amsden, and Big Snowy Group, Judith Basin, Montana, *Paul T. Walton* 1294
GEOLOGICAL NOTES
Raccoon Bend Salt Dome, Austin County, Texas, *H. J. McLellan* 1306
REVIEWS AND NEW PUBLICATIONS 1308
THE ASSOCIATION ROUND TABLE 1312
MEMORIAL
Harold Kurtz Shearer, *J. E. Brantly* 1315
AT HOME AND ABROAD 1318
(PART II)
Directory of Geological Material in North America, *J. V. Howell and A. I. Levorsen* . . . 1321

NUMBER 9 (SEPTEMBER)

Recent Investigations by United States Geological Survey of Petroleum Possibilities in Alaska, *John C. Reed* 1433
Geological Occurrence of Oil in United Kingdom, with Reference to Present Exploratory Operations, *H. R. Lovely* 1444
Petroleum Geology of Aquitaine Basin, France, *A. J. Eardley* 1517
Status of German Oil Fields, *Frank Reeves* 1546
GEOLOGICAL NOTES
Quimbys Mill, New Member of Platteville Formation, Upper Mississippi Valley, *Allen F. Agnew and Allen V. Heyl, Jr.* 1585
Oölite and Oölith, *Ronald K. DeFord and W. A. Waldschmidt* 1587
DISCUSSION
Tectonic Framework of Northwestern South America, by Fritz E. von Estorff, *Victor Oppenheim* 1589
REVIEWS AND NEW PUBLICATIONS 1591
THE ASSOCIATION ROUND TABLE
Constitution and By-Laws 1600
Supplementary Membership List, September 1, 1946 1610
MEMORIAL
Fred Burchard Ely, *Gail F. Moulton* 1616
AT HOME AND ABROAD 1617

NUMBER 10 (OCTOBER)

Geology of Maracaibo Basin, Venezuela, *F. A. Sutton* 1621
Algae Reefs in Cap Rock of Ogallala Formation on Llano Estacado Plateau, New Mexico and Texas, *W. Armstrong Price, Maxim K. Elias, and John C. Frye* 1742

Kinderhook Dolomite of Sedgwick County, Kansas, *W. A. Ver Wiebe* 1747
Correlation of Paleozoic Rocks Across Las Animas Arch in Baca, Las Animas, and Otero Counties, Colorado, *John C. Maher* 1756
GEOLOGICAL NOTES
Alunite at Woodbine-Eagle Ford Contact in Northeastern Texas, *L. W. Stephenson* . 1764
Preparation of Lantern Slides, *G. Zuloaga* 1771
REVIEWS AND NEW PUBLICATIONS 1772
THE ASSOCIATION ROUND TABLE 1779
MEMORIAL
Otto Dreher, *E. A. Ritter* 1786
Donald Dudley Hughes, *Eric K. Craig* 1786
AT HOME AND ABROAD 1789

NUMBER 11 (NOVEMBER)

West Edmond Oil Field, Central Oklahoma, *D. A. McGee and H. D. Jenkins* 1797
Hawkins Field, Wood County, Texas, *E. A. Wendlandt, T. H. Shelby, Jr., and John S. Bell* 1830
Correlation of Permian of West Texas and Southeast New Mexico, *John W. Skinner* . . 1857
Normal Fault Structures and others, *Bailey Willis* 1875
Spectrochemical Sample Logging of Limestones, *L. L. Sloss and S. R. B. Cooke* 1888
Faulting in East Part of Grand Canyon of Arizona, *C. E. Van Gundy* 1899
GEOLOGICAL NOTES
Relations between Kinds of Well Data and Apparent Faulting, *H. H. Suter* 1910
Atlantic Coastal Plain Floor and Continental Slope of North Carolina, *W. F. Prouty* . 1917
Grain Size in Carbonate Rock, *Ronald K. DeFord* 1921
Use of Quotation Mark in Science, *J. E. Eaton* 1928
"Jacob Staff" and Measurements of Stratigraphic Sequences—A Correction, *J. A. Broggi* 1934
RESEARCH
Progress Report on A.P.I. Research Project No. 43—The Transformation of Organic Material into Petroleum, *G. M. Knebel* 1935
Research Committee Calendar and Schedule, *S. W. Lowman and M. A. Hanna* . . . 1950
REVIEWS AND NEW PUBLICATIONS 1955
THE ASSOCIATION ROUND TABLE 1960
MEMORIAL
Karl Howard Schilling, *Ernest G. Robinson* 1969
John Muro Golden, *John H. Wilson* 1970
AT HOME AND ABROAD. 1973

NUMBER 12 (DECEMBER)

Distribution of Oceans and Continents, *W. G. Woolnough*. 1981
Recent Trends in Geological-Geophysical Exploration, *R. Clare Coffin* 2013
GEOLOGICAL NOTES
Elmore Embayment, Garvin County, Oklahoma, *Robert R. Wheeler* 2034
DISCUSSION
Statistics of Exploratory Drilling, *W. J. Dixon and R. M. Swesnik*. 2035
Tectonic Framework of Northwestern South America, *F. E. von Estorff* 2040
RESEARCH
Final Reports of a Reconnaissance Survey of Research Needs in Petroleum Geology by the American Association of Petroleum Geologists Research Committee, 1945–1946. Foreword, *Shepard W. Lowman* 2042
Report of Sub-Committee on Tectonics, *Philip B. King* 2042
REVIEWS AND NEW PUBLICATIONS 2064
THE ASSOCIATION ROUND TABLE 2071
AT HOME AND ABROAD 2092
INDEX OF VOLUME 30 (1946) 2097

ERRATA

PAGE 1508. First center heading should be: B. JURASSIC PROSPECTS.
Second center heading should be: C. PERMIAN, etc.
Third center heading should be: D. LOWER CRETACEOUS, etc.
PAGE 1512. Center heading should be: A. JURASSIC PROSPECTS.
PAGE 1513. Center heading should be: B. CARBONIFEROUS, etc.
PAGE 1514. First center heading should be: B. JURASSIC.
Second center heading should be: C. PERMIAN, etc.
PAGE 1589. Discussion should be: TECTONIC FRAMEWORK OF NORTHWESTERN SOUTH AMERICA.